

Montana SCHOOLS

March/April 1994

STATE DOCUMENTS COLLECTION

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Nancy Keenan, Superintendent
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GENE FISCHER PHOTO

SCIENCE STARS: Forrest Anderson (right), a senior at Helena High School, took first place in both the national Westinghouse Science Talent Search and the Intermountain Regional Junior Science Symposium in March. Sarah Lord of Big Sky High in Missoula and Brian Theroux of Sentinel High in Missoula (photos not available) placed in the top five at the Science Symposium. Shawn Hurley (left) of Capital High in Helena was the alternate sixth-place winner. Chris Sedlack (center) of Capital High also competed in the symposium and demonstrated his revolutionary research on electronically induced color changes.

Montana students shine in science competitions

March was a proud month for young Montana scientists.

First, Montana students took four of the six top places, including first place, in the Intermountain Regional Junior Science and Humanities Symposium in Utah.

Then, 18-year-old Forrest Anderson of Helena High School, first-place winner at the symposium, won first place and a \$40,000 scholarship at the prestigious national Westinghouse Science Talent Search. The Westinghouse award is considered to be the equivalent of the Nobel Prize for high school students.

Anderson's winning project was an engineering study of plastic recycling. He designed and crafted custom furnaces for the thermal decomposition of plastic wastes. His technique melts plastic without the presence of oxygen, thus producing no fumes or smoke. Anderson, who is the grandson of former Montana governor Forrest Anderson, believes his research has established technology by which plastics can be recycled without producing environmentally hazardous by-products.

The Westinghouse competition, which has been sponsored for 53 years by Westinghouse Electric Corporation, is the oldest science scholarship in the nation. A total of 1,645 high school seniors nationwide entered the contest this year; 40 were chosen to compete as finalists.

In past decades, most of the finalists have gone on to careers in science or engineering. Five have won Nobel prizes, 30 have been named to the National Academy of Sciences, and three have been named to the National Academy of Engineering.

Numbers, plants, and snake steaks
Excelling in science competitions is nothing new for Montana students. For example, Montana has consistently produced a disproportionate number of winners at the Intermountain Regional Science Symposium since the 1970s, according to Tom Pederson, a science teacher at Capital High School in Helena. The Intermountain Region includes Montana, Colorado, Nevada, Utah, and Idaho.

Of 18 students chosen to be official presenters at this year's regional symposium, eight were from Montana. Of those eight, three placed in the top five. Forrest Anderson took first place with his plastic-recycling project. Other top-five winners included Brian Theroux of Sentinel High School in Missoula and Sarah Lord of Big Sky High School in Missoula. Shawn Hurley of Capital High was chosen as the alternate (sixth-place) winner. The top five presenters will attend the National Junior Science and Humanities Symposium in North Carolina in May, where Anderson will present his project.

Sarah Lord's symposium project involved a study in number theory. According to Jim Harkins, who teaches physics and chemistry at Big Sky High School, Lord took first place at last year's regional symposium. She was chosen as one of the top presenters at last year's national Science Symposium and was awarded a trip to London for the international symposium; however, she chose to study at the Research Science Institute at MIT, instead. Lord also won three awards at the International Science and Engineer-

ing Fair in Mississippi last year. She is a senior this year.

Brian Theroux, also a senior, researched the feasibility of using snake meat as an alternative protein source for humans. According to Jim Cusker, a science teacher at Sentinel High School, Theroux

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Three of "America's Best Schools" are in Montana

Redbook magazine recently announced the winners in its third annual America's Best Schools project—and three of the 134 top schools are in Montana.

Bozeman High School was chosen to represent Montana in Redbook's Best of the States category. In this category, schools from each state and the District of Columbia are chosen for their exceptional overall performance, teachers and teaching methods, curricula, test scores, graduation rates, and commitment to excellence.

In a feature article in the April issue, Redbook said of Bozeman, "Here, 1,375 students have access to a strong visual arts program; the school even has its own fine arts gallery open to the public. Advanced-placement and university courses are offered in a number of subjects, and a computerized writing lab encourages students to produce multimedia presentations."

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Second Class
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Message from Nancy Keenan

Something new is happening with Montana school districts: they are joining forces. Increasingly, elementary and high school districts with common boundaries are uniting administratively. This is in response to a bill passed in the 1993 legislature requiring elementary and secondary districts with contiguous boundaries to form K-12 districts by 1996.

This is a trend that OPI has supported. In fact, during the last special session of the legislature, OPI joined the Montana Education Association and others in supporting administrative unification of K-12 school districts in a manner that would honor local control and encourage site-based management. Our recommendation would have allowed districts to draw contiguous boundaries, thus enabling more districts to form unified K-12 districts. The proposal would not have closed schools; that decision would have remained entirely with local school boards.

It was not an easy recommendation to make, as K-12 unification is not a completely painless option. Nevertheless, I made the recommendation because it had the potential to save the state millions of dollars and achieve government efficiencies at many levels.

However, K-12 unification is not just about good government. It also offers tangible benefits to schools and to children. For one thing, unification provides more financial flexibility for schools. Unified districts generally have access to a bigger tax base and don't have to levy as many mills. They can consolidate their health insurance pools and obtain better rates. They can save money by purchasing supplies in bigger quantities.

Most importantly, unification has the potential to improve the consistency of curriculum as students move from the elementary to the secondary level. That's good for students.

Change is always a challenge, but many Montana school districts are rallying to the challenge of K-12 unification. This sends an important signal to Montana taxpayers that schools are doing their part to streamline operations and improve efficiency. Best of all, it will have long-term benefits for schools, educators, and students alike. We can't cut costs and maintain educational quality without "working smarter."

Happy spring!



Nancy Keenan

Certification updates

OPI's renewal data base will end

The Certification Office of the Office of Public Instruction will end its practice of recording renewal unit credit earned by individual certificate holders effective July 1, 1994. This duplication of effort can no longer be assumed by the limited personnel and resources available at OPI.

Previously, as approved renewal unit activities were completed, the site coordinator was asked to send a roster of those who completed the program, and the Certification Office recorded those names for that particular program, site, and date. The rapid growth of staff development activities within Montana, nearly doubling the previous year's high within 1993, has made it virtually impossible to maintain such files.

This does not change application procedures for renewal. Certificate holders are currently required to present certificates for approved renewal unit programs completed, and/or college transcripts, upon application for renewal. The absence of this OPI data base only makes maintenance of a file for such records more critical for the certificate holder. OPI will not have a backup file to verify renewal units earned where no certificate is available as proof.

The "renewal unit" process for earning required professional development activities for renewal was developed by the Certification Standards and Practices Advisory Council and approved by the Board of Public Education in 1991. With the rapid growth in demand and number of applications to process, further study by the council and

board is being undertaken to streamline and improve the process. Comments may be directed to the Certification Office, OPI (Box 202501, Helena, MT 59620-2501), the Certification Advisory Council (2500 Broadway, Helena, MT 59620) or Board of Public Education (2500 Broadway, Helena, MT 59620).

Applicant "proof"

The Certification Office of the Office of Public Instruction is often requested, generally during the busiest months of the year, to verify eligibility or application for individuals who are seeking employment with school districts. This is not possible without stopping all processing and doing a search for documents. With applications arriving in the hundreds per day at times, it is virtually impossible to conduct multiple searches each day. This process can be avoided by using the following procedure:

Request to see a copy of an application for certification. Montana does not issue an application for certification until an evaluation of credentials verifies eligibility. If an applicant has a copy of a completed and notarized application, you may conclude that this person will receive certification. Specific endorsements may still be in question; however, this is not frequently the case.

Administrators and district personnel officials are encouraged to inspect college transcripts to note posted majors and minors as well as preparation in any specialization which the individual indicates having completed. General questions concerning such things as credit requirements are welcomed. These can be answered by OPI certification personnel without doing a records search. The Certification Office telephone number is 444-3150. If your questions relate to accreditation rules, you may wish to call OPI's Accreditation Office at 444-3128. ■

—Don Freshour, Director, Teacher Education and Certification, OPI

Internships in administration and guidance available

Teachers: Are you interested in becoming a principal or a guidance counselor? If so, you may want to investigate the internship programs available through a cooperative project involving the Office of Public Instruction's internship program and participating Montana colleges and universities. The program is approved by the Montana Board of Public Education.

Principal intern

Under the principal internship program, the Superintendent of Public Instruction may allow up to 12 experienced teachers to assume the duties of principal while completing a master's program in school administration. These teachers may function as principals without credentials and with no penalty to the school district.

The participating school district agrees to select a teacher who has the potential to become a principal but has been unable to enroll at a school that offers a master's degree in school administration. This teacher must meet the college's criteria for entrance into the administrative program. The local trustees agree to employ the teacher as principal (at least half time) while

the teacher completes a planned, supervised program in school administration. The trustees agree to pay the teacher 80 percent of a fully qualified administrator's salary. A portion of the remaining money pays the university's supervisory costs and supports the teacher's development with his or her professional association.

For information, contact Dr. Keith Chambers at Montana State University or Dr. Jerry Lowe at the University of Montana.

Guidance intern

The guidance counseling intern program operates essentially the same as the administrative internship. A school district enters into a cooperative agreement with Northern Montana College (Dr. Gerald Bekker, coordinator) or Montana State University (Dr. Richard Horswill, coordinator) for the teacher to pursue an endorsement in K-12 guidance and counseling. A share of the full salary may be used to provide college supervision and professional support.

Procedure

Interested teachers or district officials should contact the appro-

priate program coordinators on the campus of your choice and investigate program details and graduate school requirements. If you have further questions about the internships, contact Marilyn Roberts or Don Freshour at OPI (444-3150). Candidates should complete preparations by June 1, 1994. ■

Best schools

(Continued from page 1)

Redbook also recognized 83 schools in eight specific categories. **Rapelje High School** was selected as one of seven schools to be honored in the "Classroom Innovation" category. In this category, judges singled out schools that successfully implemented such creative curriculum ideas as flexible scheduling, interdisciplinary courses, and integration of the latest technology into the classroom.

Powder River County High School in Broadus was selected as one of four schools that model excellent partnerships among parents, businesses, and community leaders in the "Parent/Community Involvement" category. ■

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Montana Schools is published each October, December, February, April, and June. Deadline for articles is the first of the month prior to each publishing month. POSTMASTER: Send address changes to Office of Public Instruction, State Capitol, Helena, MT 59601.

Montana students read their poetry at the Library of Congress

The Library of Congress in Washington, D.C., has resonated with the voices of some of the nation's greatest poets. On March 10, however, the venerable building heard a new sound—the young voices of eight Crow Indian students from Pryor and St. Xavier, Montana, reading their original poetry at one of the Library's most prestigious literary and cultural events.

This historic occasion marked the first time American Indian young people have read their poetry at the Library of Congress. The honor came about through the acquaintance of Rita Dove, the nation's poet laureate, with Montana poet and teacher Mick Fedullo.

Since 1937, more than 30 American poets have been appointed to serve terms as the national poet laureate. Each season, the poet laureate sets the agenda for a series of literary programs at the Library of Congress.

Ordinarily, the poet laureate invites famous poets to these events. Dove, however, wanted to do something out of the ordinary. She remembered meeting Fedullo several years ago when he was teaching poetry to Indian children in the Southwest. Dove contacted Fedullo, who now lives in Pryor, in October and asked him to bring some of his poetry students to the nation's capital to present a reading.

Students were selected for the honor in a competition that had all of the junior high and high school students in Pryor writing poetry in their English classes for three solid weeks before Christmas. The strongest poets were chosen for the trip to Washington. These students practiced reading their poetry aloud every day for the next two months, learning how to project, where to pause, how to carry themselves, and when to make eye contact with the audience.

Another way of talking
Chuck Lance, a ninth-grade student at Plenty Coups High School in Pryor and one of the eight chosen poets, said he never could have dreamed that one day he would be reading his poetry before a distinguished audience at the Library of Congress. When he first started writing poetry, he said, "I was just messing around, trying to be creative." When the "messing around" turned out to be quality writing, Lance said, "I was surprised. I didn't think I could write like that." Now, Lance said, writing poetry is "just like another way of talking."

The poets included four students from Plenty Coups High School in Pryor: Scott Plain Bull, Loretta Shane, Chuck Lance, Mike LaForge; two from St. Charles Mission in Pryor: Mike Beaumont and Yolanda Old Dwarf; and two students from Pretty Eagle School in St. Xavier: Charles Yarlott and Nalayna Blaine.

The theme for the students' presentation at the Library of Congress was "Keeping Our Heritage and Our Lands." The reading began with a smudging, or

burning of cedar and sage, and a traditional elk greeting call performed by 12-year-old Lawren Flatlip of Pryor. The poets presented their works in traditional Crow clothing, the young women in elk tooth dresses and the young men in war bonnets. Slides taken on the Crow Reservation by Billings photographer Michael Crummit were projected behind the students as they read. The event was recorded for the library's archives and made available for broadcast to stations in the National Public Radio Network.

During their all-expense-paid trip to Washington, the students visited

Capitol Hill and the Smithsonian, met with Montana's congressional delegates, and got a private tour of the White House. Senator Max Baucus arranged for the students to leave a wreath at the Tomb of the Unknown Soldier. In doing so, the students followed in the footsteps of Chief Plenty Coups, last chief of the Crows. Plenty Coups represented all of the nation's Indian tribes when he spoke at the dedication of the tomb in 1921, leaving his war bonnet, coup stick, and the Crow flag at the monument as a tribute.

A culmination
For Fedullo, the Library of Congress

reading culminated his more than a decade of working with American Indian children. "It's the highlight of my career in Indian education," he said.

Fedullo has worked with Indian and other bilingual children throughout the West, helping students express themselves through poetry. He encourages poetry as a means of helping children become comfortable writing in English. For the past 10 years, Fedullo has conducted an expressive language program sponsored by the Office of Public Instruction, in which he spends a

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"Keeping Our Heritage and Our Lands."



Mick Fedullo, center, and six of the Crow poetry students were honored at a community send-off in Pryor before departing for Washington, D.C.

Grandfather

Grandfather guided the car like a roller coaster, the car is one with the road. He lets it roll. Our minds are outside of us, dancing around us. We are still, but everything rushes behind us.

The wrinkles around his eyes pull together when he looks ahead, the road grows narrow, soon he will come to the end of it. Beyond that the horizon glows blue until it sparkles. Grandfather knows soon he will become one of the stars.

Back when the gray on his hair was black and the canyons on his face were gone, he guided a horse, he and his horse were one, his pride and his courage are still lit like a candle, still today.

Scott Plain Bull, grade 12

Vision

When I forget my traditions I walk my land Asking the Great Spirit's forgiveness. I listen to the wind tell me stories about my ancestors, Trying to regain my strength, Keeping my weakness out, showing me how to succeed, Keeping my heart to the beat of the drum, Making my mind light as a feather, Giving me great medicine, Making my imagination gallop with the horses.

Mike LaForge, grade 9

Grandmother

Thinking of the days now past, I see my grandmother young and beautiful. She is like a flower ready to bloom, Growing gracefully as the days go by, Never knowing what the next day will bring. Looking at her now, I see the beauty that was once before In a shell of long bitter years. So close to me, and yet so far. I admire my grandmother for who we are.

Loretta Shane, grade 12

I, Plenty Coups

I run gracefully through the tall grasses of the plains, with tall mountains in the distance and rolling hills on both sides of me.

My grandfather says that to seek endurance, catch a butterfly, rub its wings upon your heart and ask for grace.

With that, I run to the plains between the rolling hills with tall grasses and the mountains in the distance. I pause for a moment, remembering what my grandfather had said, then I gracefully chase grace itself, the butterfly. I pluck the butterfly from the sky, rub its wings against my heart, and ask for swiftness and courage.

I, Plenty Coups, remember that day. I remember when a Crow warrior had to be the best in order to survive.

Yolanda Old Dwarf, grade 7

Grandfather

As I walk down the creaking hallway, I sense my grandfather, standing in the blinding darkness like a ghost warrior in a war party. I can't see him but I can feel him walking to his chair. He sits down. I can remember when he used to tell me stories, stories that in my mind seemed so real, yet also like fairy tales. I never showed my grandfather how much I loved him, the love that makes angels sing, the love in your heart that runs freely, wildly, and that only I could have released. My grandfather is gone now, gone like the leaves in autumn, but I sense that his spirit will always be with me.

Chuck Lance, grade 9

Services for deaf-blind children and youth

Deaf-blindness is a loss in both the vision and hearing senses. This condition affects over 8,000 children between birth and 21 years of age in the United States.

Deaf-blindness has over 70 known causes; however, regardless of the cause, the challenges of deaf-blindness are lifelong. Appropriate education must address both the hearing and vision impairments as well as any other disabilities that may be present.

Children who are deaf-blind may exhibit a wide range of behaviors during interactions with family, friends, and their environment as a result of the sensory losses.

The losses may occur in varying degrees, and a child need not exhibit all of the behaviors identified in this article to be considered deaf-blind. For example, a child may show only one of the behaviors that indicates a hearing impairment but may show several of the behaviors that indicate a vision impairment. The combined effects of both of these sensory losses, even if both are mild, may qualify him or her as deaf-blind.

Parents and professionals, upon observing these behaviors, may need assistance in confirming the sensory loss. Contacting Montana Services to Deaf-Blind Children and Youth at the Office of Public Instruction is the first step to securing assistance.

Definition

The federal definition of deaf-blindness states, "children and youth having auditory and visual impairments, the combination of which creates such severe communication and other developmental and learning needs that they cannot be appropriately educated without special education and related services, beyond those that would be provided solely for children with hearing impairments, visual impairments, or severe disabilities, to address their educational needs due to these concurrent disabilities."

Dual sensory impairment

The following questions are designed to help parents and professionals determine whether there is a possibility of a vision and hearing loss. If you answer yes to questions in **both** of the following sections, the child may have a dual sensory loss and should receive complete vision and hearing assessments. Montana Services to Deaf-Blind Children and Youth can assist with referrals for assessments.

Behaviors that may indicate a visual impairment

Does the child or student...

- often bump into persons and objects?
- have difficulty walking or crawling smoothly across shadows or areas that look different (carpet or tile)?
- need to touch or have an object close to the face to identify it?
- prefer only brightly colored or shiny objects?
- have difficulty reaching for and grasping objects in a coordinated manner?
- squint, cover, or close one eye when looking at objects?
- lose interest or tire easily when performing close tasks?
- usually turn toward a light source?
- fail to recognize and respond to familiar faces?
- have difficulty following moving objects with his/her eyes?
- have eyes that are red or watery, not clear?

Behaviors that may indicate a hearing impairment

Does the child or student...

- fail to react to loud noises?
- frequently ask to have things repeated or follow directions incorrectly?
- seem confused when verbal directions are given in noisy environments such as playgrounds or school cafeterias?
- indicate agreement (nods head) when you know he/she does not understand what was said?
- have difficulty locating the sources of sounds?
- fail to recognize and respond



THIRD EYE PHOTOGRAPHICS, CRAIG SHARPE

- appropriately to words or common home noises (telephone, door knock, television)?
- understand better when looking directly at the speaker?

Help is available

Services provided by Montana Services to Deaf-Blind Children and Youth include the following:

- assistance in identification;
- on-site technical assistance (such as one-on-one consultation, inservice workshops, program design and review) for families, educators, and others based on individual needs;
- lending library with up-to-date books, articles, and manuals;
- access to programs, professionals, and parents who are involved with individuals who are deaf-blind and their families;
- Newsletters and project mailings for up-to-date materials on deaf-blindness.

For more information

If a child's behaviors lead you to think that he or she might have both hearing and vision impairments, and you would like further information and referral, please contact Francisco Roman, Project Director, Montana Services to Deaf-Blind Children and Youth, Office of Public Instruction (phone: 444-4426; TDD: 444-1812; fax: 444-3924). ■

Satellite conference on National Standards Dissemination Project

On April 12 and 13, 1994, the National Standards Regional Dissemination Project, funded by OERI and administered by the Center for Civic Education, will present "A Satellite Conference on National Standards for American Education." The program standards to be discussed include the arts, mathematics, civics and government, English, history, science, geography, and foreign language. The conference times are as follows:

Day 1: April 12, Tuesday, noon-4 p.m., Central Standard Time.

Day 2: April 13, Wednesday, 9-1 p.m., Central Standard Time.

A notice describing the conference and listing the satellite coordinates will be sent to all private schools, public school districts, curriculum consortium directors, and educational organizations and associations in the state. The satellite connection fee for the conference will be paid for by funds from the OERI grant.

The Regional Dissemination Project is organized into 10 regions. Montana is part of Region 9 (Alaska, Idaho, Montana, Oregon, and Washington). Two Washingtonians, Larry Strickland and Kathy Hand, are the regional chairpersons of our region.

If you have questions, please contact Linda Vrooman Peterson, Office of Public Instruction (444-5726). ■

Annual Distance Learning Conference moved to fall

The Distance Learning and Technology Conference normally held in the spring is being moved to the fall this year. Mark September 11-13, 1994, on your calendar for the Montana Telecommunications and Distance Learning Conference.

Currently, efforts are being made to combine the Montana Telecommunications Advisory Council Conference, the Distance Learning and Technology Conference, and the Frontiers in Education Conference sponsored by the University of Montana.

By combining all three conferences into one time period, a better selection of conference offerings and more resources can be made available. In addition, precious time and travel costs for individuals who traditionally attempt to cover all three conferences can be saved.

Consider setting aside PIR days for this combined conference. For more information, contact Cynthia Denton, P.O. Box 359, 201 3rd Ave. E., Hobson, MT 59452 (phone: 423-5505; Russell County BBS: 423-5433; METNET BBS, or Big Sky Telegraph). ■

CH.A.D.D. provides assistance for Montana students with attention deficit disorder and their families

(First of two articles)

Attention deficit disorder (ADD) is a neurobiological disability, frequently characterized by inappropriate degrees of inattention, impulsivity, and hyperactivity.

These characteristics appear in early childhood, are relatively chronic in nature, and are not due to other physical, mental, or emotional impairments. ADD is a hidden disability. Children with ADD look normal, and the adults in their lives expect them to act normally. But children with ADD behave in a way that comes naturally to them.

The condition affects up to 5

percent of all American children, and as many as 50 percent of children with ADD are never diagnosed. Without early identification and proper treatment, ADD can have serious consequences including school failure, dropping out, depression, conduct disorders, failed relationships, and even substance abuse.

Attention disorders in the classroom

Problems occurring at school usually prove to be the catalyst for a diagnosis of ADD. Behavioral difficulties may first become evident at school because the child is asked to maintain attention for long periods of time and sustain a

persistent effort.

Children with ADD experience difficulties in many or all of the skills needed for academic success: starting tasks, completing tasks, making transitions, interacting with others, following through on directions, producing work consistently, and organizing multi-step tasks.

The majority of children with ADD can be taught for all or most of the day in a regular education setting. For this reason, it is important that teachers are trained to recognize the special needs of these students and to make any appropri-

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Arts partnership brings professional artists to schools

When people think of school/community partnerships, they often think of local businesses working with schools. In Jefferson and Lewis and Clark counties, however, schools are participating in a different kind of partnership—one with a local arts organization.

Through an award from the National Endowment for the Arts, schools in these two counties are working with "Helena Presents" to enhance and improve education in theater and dance. Helena Presents is a nonprofit organization dedicated to presenting high quality arts events in the Helena area. The three-year, multi-faceted program, called ARTS PLUS, seeks to make long-term substantive changes in

to students. Teachers can earn renewal or recertification credits by attending workshops and performances with these artists.

Other inservice options include workshops at various schools for professional development days, weekend courses for college credit, and specially designed programs at individual schools.

Artists in residence

Another committee brings professional artists in theater and dance directly to students. These artists in residence typically spend about one week in a school, working intensively with at least two groups of students, sharing their art form with hands-on activities. Artists will visit schools in Helena, Whitehall,

Cardwell, Boulder, Basin, East Helena, Wolf Creek, Lincoln, and Canyon Creek. Costs are shared by the schools, Helena Presents, and the Montana Arts Council.

Creating curriculum

A third committee is writing dance and theater curricula for the elementary grades. Using information from the draft National Standards for Arts Education and from other states, the committee is creating materials that can be used to integrate dance

and theater with other classroom subjects.

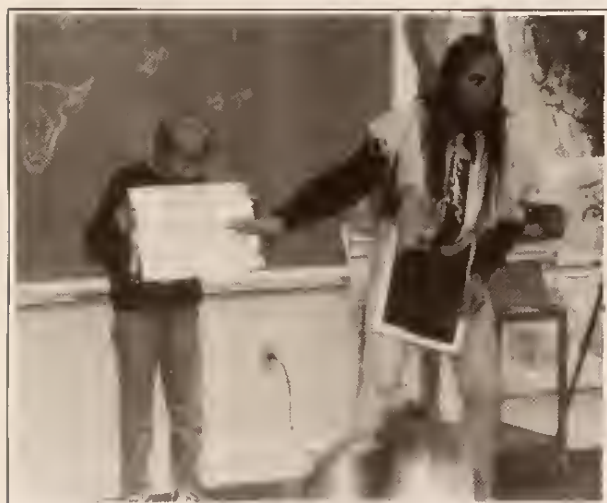
Advocacy and awareness

The advocacy committee is responsible for increasing public awareness and understanding of the arts in education. Its first action was to develop "The Button Project," in which students created special buttons in their classrooms that bore the "ARTS PLUS" name. The students then received discount ticket prices for many events at performing arts centers and schools in their area throughout the year.

Finally, all the committees and staffs work together to organize special opportunities for students such as lectures, demonstrations, assemblies, performances, and workshops with nationally known artists. From internationally renowned storyteller Jackie Torrence to the New York's Feld Ballet Company, from the Ririe-Woodbury Dance Company of Salt Lake City to theater companies from the Appalachian Mountains and New Orleans, artists and companies of all shapes and sizes are performing and working in our schools.

With just over half the project completed, the partnership is in full swing. Most of the people involved are amazed at what they've been able to accomplish in such a short time. Students, teachers, parents, administrators, and community members all benefit from the fruits of this fortuitous partnership.

—Julie Smith
OPI Arts Education Specialist



Artist John LaFountaine works with fourth graders at Broadwater School through the ARTS PLUS program.

arts education in these schools through teacher inservice, artists in residence in schools, development of a model theater and dance curriculum for grades K-5, advocacy in the community for arts education, and a broad range of school and community programs.

The real beauty of ARTS PLUS is that everyone seems to be winning. Teachers are noticing changes in student behavior and achievement as a result of work with artists. Artists have the opportunity to work with students and teachers. Schools have access to resources that used to be unavailable to them. Helena Presents is fulfilling its educational mission. Teachers have opportunities to learn about theater and dance, areas which probably were not a focus of their preservice training.

The entire ARTS PLUS program is managed by advisory committees of area teachers, administrators, artists, parents, and other community members. These committees determine activities, direction, and focus for each aspect of the program.

Teacher inservice

One committee focuses on the broad area of teacher inservice. The committee has developed a variety of programs including a comprehensive after-school workshop series with visiting artists. Many of the professional performers who visit the Helena area have worked extensively with students.

ARTS PLUS provides a mechanism through which artists and teachers can work together to design and execute activities of great value

Ancient teachings: Montana archaeology in the schools

The Montana Archaeological Association (MAA), the State Historic Preservation Office of the Montana Historical Society (SHPO), and the Parks Division of the Montana Department of Fish, Wildlife and Parks (DFWP) have announced plans for Montana Archaeology Week, April 29 - May 7, 1994. The theme for this year, "Ancient Teachings," focuses on teaching Montana schoolchildren about archaeology and archaeological sites.

Unlocking secrets of past peoples by studying what they left behind holds fascination for both adults and children. In Montana, there are many such fragments of everyday life on our landscape and in our museums, from tepee rings and cabin foundations to stone scrapers and amber bottles. People of all ages are curious about archeological sites, about artifacts which remain with us from the past, and about what we can learn from them.

In observance of Archaeology Week, the MAA, SHPO, and DFWP are preparing materials for teachers. These include a teaching guide about Montana prehistory and archaeology, suggestions for classroom activities, information on supplementary teaching materials, and a Montana Archaeology Week 1994 poster.

In addition, the agencies are compiling a list of professional archaeologists who are willing to visit local schools to talk with students about Montana archaeology and prehistory during the first week of May. As many requests as possible will be filled, on a first-come, first-served basis. To request a class visit or to obtain more information, contact Chere Jiusto, Heritage Education Project, State Historic Preservation Office, 1410 8th Ave., Helena, MT 59620 (444-7778); or Richard Periman, president of the Montana Archaeological Association and archaeologist for the Deerlodge National Forest, Butte Ranger District, 1820 Meadowlark, Butte, MT 59701.

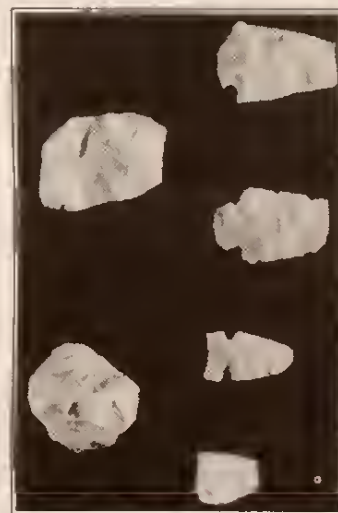
Educational trunks

A second, long-term purpose of this project is to develop lesson units and teaching materials for ongoing circulation to Montana schools in response to regular requests from teachers for speakers, materials, and information about archaeology and Montana prehistory.

These will be similar to the popular educational trunks on historical themes currently circulated to teachers by the Montana Historical Society. The Historical Society and SHPO staff are currently developing two theme trunks on Montana prehistory. Each trunk will include a teaching guide and lesson materials, artifact reproductions, a slide show, and a resource directory.

The first trunk, "Pictograph Caves," will explore how people lived at the cave site near present-day Billings. This trunk will be developed for use with grades 3-5. The other trunk, "Ancient People/Early Sites," will offer an overview of the earliest known sites of human activity in Montana and will be intended for audiences in grades 6-12.

For more information about the Pictograph Caves and Ancient People/Early Sites theme trunks, contact Joan Haefer, Montana Historical Society, 225 N. Roberts, Helena, MT 59620 (444-4794); or Chere Jiusto, Montana Heritage Education Project, State Historic Preservation Office, 1410 8th Ave., Helena, MT 59620 (444-7778).



Reproductions of artifacts such as these will be part of the prehistory trunks available to schools.



Tepee rings such as the one pictured above are commonly found in Montana. Some of them may be over 2,000 years old. Classes can learn about Montana prehistory from a professional archaeologist during Archaeology Week, April 29-May 7, 1994.

Earth Day!

April 22 is Earth Day, an event that some schools observe as Earth Week. Presented on these pages are several ideas for observing Earth Day or Earth Week. Most of the activities are designed to be interdisciplinary, hands-on, and adaptable for different age groups.

What is your school doing to celebrate Earth Day or Earth Week? We'd like to know. Please write to Montana Schools, Office of Public Instruction, P.O. Box 202501, Helena, MT 59620-2501.

For more Earth Day ideas:

The March 1990 issue of *Learning* magazine has a whole section of Earth Day activities, ideas, and information for all grade levels. Some of the offerings include:

- a home ecology inventory;
- book lists and bibliographies;
- activities on solar, wind, geothermal, and fossil fuel energy.

The April issues of *Instructor* magazine for the last several years contain several Earth Day activities, including:

- a hands-on unit on the science of garbage (1991);
- water projects for all grade levels (1992);
- a literature-based unit on endangered species (1992);
- math-centered recycling activities (1993).

How NOT to celebrate Earth Day (or any other occasion!)

Schools often celebrate special occasions by releasing balloons into the air. The effect is festive, but it can have devastating consequences for wild or domestic animals. The balloons sometimes travel hundreds of miles and can cause an agonizing death for an animal that ingests the colorful bits of plastic.

Third in a series on environmental education

—Russell Hartford, Science Specialist; Mary Cheryl Larango, Bicycle/Pedestrian Safety Specialist; Spencer Sartorius, Health Enhancement Director; Linda Vrooman Peterson, Social Studies Specialist; Cheri Bergeron, Resource Librarian; Lorrie Holt, Law-Related Education Specialist; Sanna Porte Kiesling, Montana Schools Editor; Office of Public Instruction

Learning about transportation as an environmental issue

Many students are concerned about environmental issues such as saving the rain forest. However, there are environmental issues closer to home that are just as intriguing, although often overlooked. One of them is transportation.

The topic of transportation can provide a theme for a series of schoolwide or classroom learning activities. The possibilities are nearly limitless; this article explores just a few of them.

Some background about transportation

Did you know . . .

- Automobiles contribute nearly 20 percent of the main "greenhouse gas" (carbon dioxide). The average car emits its own weight in carbon dioxide each year.
- Short automobile trips (under two miles) produce a disproportionately high rate of emissions. This is because engines need time to reach a certain temperature before they burn fuel efficiently.
- Walking and bicycling can provide solutions to atmospheric pollution.
- The National Personal Transportation Survey (NPTS) found that, in 1990, there were 93,347,000 households in the U.S. Those households accounted for 158,927,000,000 motor vehicle trips during the course of the year. That averages out to just over 17,000 motor vehicle trips per household per year, or just under five trips per day. (That's an average which, by the way, included the one-person/non-driver household as well as the six-person/four-driver household.) Of those five trips, just over one, on average, is a trip to work.

Ideas for classroom activities

Math: How many vehicle trips, for what purpose, and how many miles do students travel each day? Have them record the number of vehicular miles traveled by their families during one week. Graph this information individually and by class. Have classes challenge each other to reduce these miles. Calculate the percentage of change. Make calculations comparing the energy use of burning a gallon of gasoline as compared to burning calories to travel a mile. Compare the time involved, using 10 miles per hour as an average automobile town speed. This speed takes into account traffic control devices and congestion. It may be interesting to hold a bicycle vs. car commuting race. (Finding a parking space will nearly always add time to the car commute!)

Extrapolate this activity to calculate the annual energy savings and pollution reduction if the entire town or state annually reduced its vehicular miles by the same percentage as the school's average reduction.

Science: Have students smear clean white paper with petroleum jelly. Hang one sheet of paper outdoors away from rain and another sheet indoors away from open windows. Compare the two sheets at the end of one day. After two weeks, compare both sheets to clean white paper. Look at the particles under a magnifying glass. Students can then discuss where they think the particles came from, how they can be removed, and how transportation relates to the particles.

Have students study pollution issues associated with cars, using library media sources for information. Have them brainstorm ways to address these issues. Their problems and solutions can be represented on posters that can be placed in the school or other community areas such as supermarkets, libraries, and community

centers. Their findings can also be presented orally.

Social Studies: Families are not going to give up the motor vehicle, but if we could reduce the vehicular miles traveled by our households, where could we start? What would be the incentives? Disincentives?

Engage students in a role play called "What Would You Do If...?" The activity involves students in a series of exercises in which they work in groups to show how a family's transportation needs might be met if automobile trips were limited to six trips per week. The objectives of the activity are for students to: 1) describe how the results of technology have affected individuals' lives; 2) identify costs and benefits of using a particular technology; 3) generate several alternative solutions to a problem; 4) recognize the trade-offs involved when individuals sacrifice some conveniences for the good of the environment. A detailed lesson plan is available. Contact Mary Cheryl Larango, Bicycle/Pedestrian Safety Specialist, OPI, (444-0516).

Research nations in which walking, bicycling, or buses are dominant forms of transportation instead of automobiles.

Explore how lifestyles, the environment, and the economy in the United States might change if people made significantly less use of motorized transportation. Have students start with their individual lives, then move to the town/county, state, and national levels. Make sure they explore negative as well as positive aspects of change. For example, how would such a change affect jobs in industries such as car manufacturing, oil,

and gas?

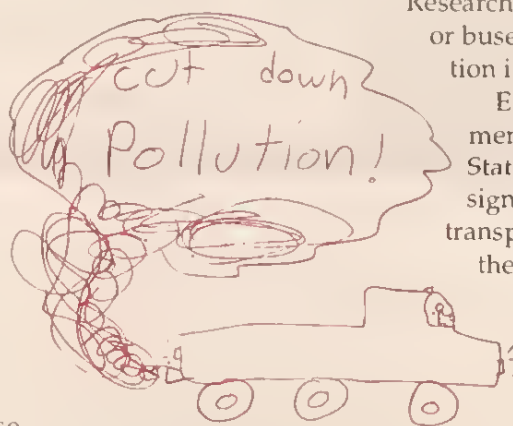
Have students design and implement a survey to poll people's attitudes about transportation. What factors affect people's transportation decisions? What are people's attitudes toward mass transit, carpooling, bicycling, or walking? How much do people know about pollution and other issues that result from the ever-increasing use of the automobile? Have students present their survey findings.

History: Study the different types of transportation used throughout history. What were the pros and cons of each type of transportation for the individual, society, and environment? How did different transportation modes affect the environment? What types of industry were dependent on various types of transportation?

Language arts: Have students write about what their lives might have been like during the different periods in history mentioned above.

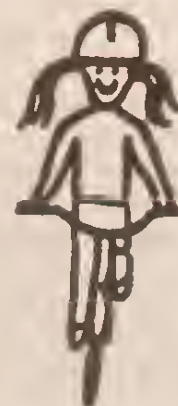
Have students keep a journal of their transportation modes and vehicular miles traveled for one week. If students embark on a project to walk or bicycle for a period of time, have them write about what they observe while walking or bicycling.

(Continued on page 7)



Remember safety!

Earth Day and Earth Week are perfect occasions to undertake activities that involve bicycling or walking. Any such projects should include a strong safety component.



(Continued from page 6)

Have students tape public service announcements that encourage walking, bicycling, or carpooling. Have them write the script and do the actual recording or camera work.

Montana History: Research the Army Bicycle Corps that trained at Fort Missoula in the late 1800s. This corps of black soldiers, under the leadership of Lt. James Moss, bicycled in Glacier and Yellowstone Parks as training exercises. Their mission was to test the feasibility of the bicycle as a transportation vehicle for the Army. (The Army ultimately decided against the bicycle for military use in America, as horses were plentiful and roads were few.)

Music: Have groups of students create rap songs regarding bicycling, walking, or the environment. Each group can share their songs with the other participants. Video tape the performance.

Take a walk with students while discussing the different rhythms of walking and other muscle-powered transportation.

Art: Have students create alternative forms of transportation. This can be done by drawing or by creating a model (miniature or life-size). Students can either improve on an existing form of transportation or design something completely new.

Health: Discuss muscle groups used in walking and bicycling. Calculate the number of calories burned during these activities; compare them to calories burned during other activities.

Traffic Safety: Discuss safety issues in walking, bicycling, riding the bus, and riding in automobiles.

Walking activities for elementary classes

Try taking your students for five- to 15-minute walks each day. Learn about the colors of flowers, the movement of clouds, the sound of nature, the flights of birds, and the fragrance of fresh air. With every walk, students' vocabulary and speaking skills will increase. They will become sharper observers and better explorers. In the process, they will be getting the physical activity necessary for good health. They might even develop a liking for exercise and movement.

At Central Elementary in Roundup, for example, students and teachers have used a "walking wellness" curriculum designed by nationally renowned walker Robert Sweetgall. Teachers at Central have used walks with their students for learning concepts in math, language, music, map and graph skills, science, and social studies.

On a walk, you can learn about...

- history, geography, weather, nature, vegetation, science, animals;
 - geometric shapes, counting, addition, subtraction, fractions, estimating, logic, reasoning, space, time;
 - aerobics, warm-ups, posture, walking technique, pacing, strength, stretching;
 - listening, teamwork, cooperation, sharing;
 - reading, spelling, vocabulary, writing, speaking;
 - observing, exploring, discovering, navigating, sensing, recalling;
 - nutrition, energy, weight control, drug-free living.
- The human mind works better with increased blood

(Continued on page 9)

Possible themes for transportation-related activities

- Try Another Way Day or Week
- Walk/Bike Day or Week
- Muscle Power Day or Week
- Clean Air Day or Week

Twenty reasons for kids to walk:

- Walking...
1. builds self-esteem
 2. builds strong bones
 3. increases attentiveness
 4. increases muscle mass
 5. controls disruptive behavior
 6. controls fat cell growth
 7. diminishes stress
 8. diminishes hyperactivity
 9. strengthens the heart
 10. strengthens communication skills
 11. develops a wellness attitude
 12. develops good posture
 13. stabilizes friendships
 14. stabilizes blood pressure
 15. encourages use of senses
 16. encourages drug-free living
 17. encourages language development
 18. promotes physical coordination
 19. lets everyone participate
 20. lets everyone have fun

"Walking would teach people the quality that youngsters find so hard to learn—patience." —Edward Payson Weston

Hold your own classroom Earth Summit

In 1992, the historic United Nations Conference on Environment and Development (more commonly known as the "Earth Summit") took place in Brazil. One of the hottest topics of discussion at the summit was the rapid depletion of the world's tropical and temperate forests. Discussions centered on disagreements between the "developed" and "developing" countries.

After much debate and negotiation, the nations agreed on non-binding principles for the management, conservation, and sustainable development of all types of forests.

You can recreate the Earth Summit in your classroom with the activity presented below. This activity allows students to 1) examine the complex issue of rainforest destruction, 2) develop an awareness of the differences in environmental and economic resources that exist among various countries, and 3) try to create compromise solutions that support sustainable development.

Holding a classroom Earth Summit

1. **Divide into groups.** Each group will represent one of the following nations: Brazil, Japan, Indonesia, Niger, and the United States. Appoint student moderators to guide the debate.

Have each group research the issue of deforestation and find background information about its country. Use the following questions to guide research:

- Why is deforestation occurring? What role does your country play in this issue? What are some of the alternatives to destroying the forests that also consider the needs of people?
- Does your country have many forest resources? Have your forests been used to create wealth for your country? How will future generations be affected by how quickly you are cutting your forests now?
- How does your country's financial wealth compare to the other countries in the Earth Summit? How does your country's consumption of natural resources compare to the other countries'?
- How might your country gain or lose if you and other countries practiced sustainable development?
- Who should pay for international efforts to save the forests? How much can your country contribute? If all countries contribute to a fund, who should decide how the funds are spent?
- Should each country have the right to decide how to use its own forest resources? Why or why not?



2. **Have each group write a proposal** to debate at your Earth Summit. Discuss what the world could do to conserve forest resources. Each proposal should benefit the group's country economically and protect the forests. The proposal should also help all other countries work toward conserving the world's resources.

3. **Hold the Earth Summit.** Moderators should read the finished proposals before the summit, listing questions to ask presenters and identifying potential areas of compromise. Have each group choose a representative to give a five-minute presentation of the group's proposal, with a question-answer session after each presentation. After all presentations have been given, have the moderators present a compromise proposal to the other students for debate.

Possible extensions:

Organize a "Town Summit" for your community. Have students develop lists of environmental concerns they have about their community. List the diverse groups within the school or community that might have different perspectives on these concerns. Interview actual representatives from these groups or invite them to the Town Summit. This activity could also be conducted as a "School Summit," in which students identify environmental issues important to their fellow students and then hold a summit to decide what to do about these issues. ■

(Adapted from *EPA Journal*, April/June 1992. Teacher Ron Monson of Minneapolis, MN, assisted the Environmental Protection Agency in developing this lesson plan.)

Field ecology course

The Montana Environmental Education Association (MEEA) will sponsor the second annual Field Ecology Course, to be held June 20-25, 1994. The course will give teachers of grades 5-12 practical field experience in outdoor education and field ecology techniques.

Two graduate semester credits from the University of Montana are available (Science 495). The course is designed for both the seasoned teacher and the newcomer to field ecology instruction. Applicants are selected on a first-come, first-served basis.

Topics covered will include Western Montana ecosystem identification, field identification of birds, flowering plant and mushroom identification, range management, aquatic ecology, and fire ecology.

The course takes place in the vicinity of Deer Lodge. Each participant will receive a stipend of \$200 to offset personal expenses during the course. The cost of the course is \$40 for MEEA members and \$65 for non-members.

For an application, contact Gary Swant, MEEA Field Ecology Course, 113 N. Frontage Rd., Deer Lodge, MT 59722 (846-2451). Applications must be postmarked by May 1, 1994.

School yard ecology project launched at University of Montana

If you're looking for opportunities to get your students involved in hands-on ecology studies, you needn't look any further than your own back yard. Your schoolyard, that is.

A new project coordinated by the University of Montana, called the School Yard Ecology for Elementary School Teachers (SYEFEST), will encourage teachers to teach ecology and natural history activities outdoors.

Montana is one of 15 sites in the nation participating in the SYEFEST project, which was developed by the Institute of Ecosystem Studies in Millbrook, New York. The project calls for developing schoolyard ecology training teams at each of the 15 sites. These teams will consist of an academic ecologist and an elementary school teacher, mentor teacher, or science supervisor.

The teams are working this spring to develop schoolyard ecology summer institutes for local teachers. According to Carol Brewer, an assistant professor of science education at the University of Montana and coordinator of the schoolyard ecology project in Montana, the first institutes will be held in the Missoula this summer. Brewer hopes to expand the schoolyard ecology network statewide in the coming years.

The institute will train teachers how to conduct brief ecological studies in the schoolyard, how to collaborate with scientists and other community experts to identify resources for teaching ecology in the schoolyard, how to find useful curricular materials, and how to cope with the logistics of managing classes outdoors. The training teams will offer follow-up support for participating teachers during the school year and develop a schoolyard ecology manual.

Even the most seemingly barren of schoolyards can yield opportunities for ecological research and hands-on activities.

For more information about SYEFEST, contact Dr. Carol Brewer, Division of Biological Sciences, University of Montana, Missoula, MT 59812-1002 (243-6016). ■



"Green" marketing: activities for business or social studies classes

In the 1990s, "green" is not a neutral issue, claims the American Management Association. In today's business world, "green," which is defined as "environmental friendliness," is either a liability to a business because of costs and fines, or an advantage to a business that positions its products and services as environmentally friendly. In either case, says the AMA, today's businesses cannot avoid the subject.

Earth Day and Earth Week offer a chance for business education or social studies classes to explore the issue of "green" marketing. Here are some ideas:

- Research and discuss the profits and costs of the "green" trend. Profits might include: reducing manufacturing and packaging waste, conserving energy, attracting new customers, preempting competition, gaining goodwill, avoiding fines and penalties, and doing something that's good for the Earth. Costs might include: compliance with environmental laws, fines and penalties, retooling to reduce waste and emissions, increased paperwork, potential need for additional labor, and opportunity loss (time spent on "green" issues is time lost on other opportunities).

- Research and discuss some of the pioneers of "green" marketing. Here are some examples (source: American Management Association, unpublished document from AMA's marketing seminar):

Ben & Jerry's ice cream (Vermont). This small business with a high-profile "green" attitude recycles extensively, treats waste with a prototype solar aquatic treatment system, and gives a portion of its profits to environmental organizations.

Patagonia (California). Creator of fashionable and functional outdoor apparel, Patagonia pledges a percentage of its profits to environmental protection; substantially reduced its product offerings in 1993 in order to reduce its impact on the environment; prints its catalogs on recycled paper, thus saving 3,936 trees,



949,613 kilowatt hours of energy, and 1.6 million gallons of water in just six months; and has teamed up with a plastic recycling company to create a fleece fabric made from recycled soda bottles.

Seventh Generation (Vermont). This company sells personal care products, home products, and environmentally friendly apparel. Its "GreenCotton" fabric is made without bleaches, dyes, or formaldehyde and is organically grown by low-impact cotton farming methods that reduce pesticide use.

Nike. Nike shoe company launched a "Reuse-A-Shoe" pilot program. The company teamed up with shoe stores and a waste management company to offer consumers a chance to trade in their Nike shoes during a back-to-school promotion. Old shoes are ground into raw materials that will be used to create new footwear, running tracks, or home insulation products.

McDonald's. In 1990, McDonald's restaurant chain and the Environmental Defense Fund (EDF) formed a "strategic

alliance" to make McDonald's more environmentally friendly. A task force conducted a study to find how McDonald's could reduce solid wastes at its 11,000 restaurants worldwide, then identified 83 initiatives for McDonald's to implement. As a result, McDonald's began recycling all of its corrugated cardboard, which accounted for a third of its garbage, thus eliminating nearly 350 tons of trash per day. To create a demand for the recycled cardboard, McDonald's ordered its suppliers to use boxes with a minimum of 35 percent recycled content. By 1993, the company's trash was down 90 percent from its 1990 level.

- Research "green" investment funds. These mutual funds cater to environmentally concerned investors by establishing standards for screening a company's environmental responsibility. Samples include the Calvert Group, Green Century, Covenant Portfolio, and New Alternatives.

- "Green" marketing: hype or hope? Have students tour a grocery store and find examples of "green" marketing schemes. Research these products to discover whether or not they are as environmentally benign as the marketing indicates. ■

The Gaia Hypothesis: supermarket or living system?

The "Gaia Hypothesis," first postulated by Jim Lovelock, holds that the Earth is a living planet. This hypothesis has stimulated discussion as to whether humans should treat the Earth as a boundless supermarket or rather as a living system.

Proponents of the "living system" theory say humans must balance what we take from the Earth by working to restore whatever we can. However, that approach has its consequences, as students will see when they try the activity below.

This activity provides the opportunity for students to consider how humans can best manage our finite resources. Students will have the opportunity to:

- consider the effect of extracting resources from the earth and the potential impact it may have on the environment;
- analyze their own thoughts about environmental protection and explore the responsibilities a citizen in a democracy has in protecting the environment;
- discuss the role of the law, the courts, and the regulatory process in protecting the environment; and
- weigh the costs and benefits of environmental protection.

This activity could be used to precede a unit on mining in Montana. (As with all environmental

education activities, it is critical to teach students HOW to think about environmental issues, not WHAT to think.)

Go for the gold

You will need two chocolate chip cookies, a plate, and a napkin for each student. Inform students that they will be given a task involving the cookies and, therefore, they are not to eat the cookies! Distribute the plates, napkins, and cookies to each student.

Explain the following hypothetical situation to students: It is the year 2020. The value of gold has skyrocketed. Your assignment is to mine the gold. The chocolate chips are the gold. The cookie is your mining claim. Permit students time to "mine" their "claims."

Once students have mined their claims, explain that their next task is to restore each claim to its original state. Give them time to attempt to restore the "soil." Provide time to discuss their attempts.

Give everyone a second cookie. The hypothetical situation remains the same. Have students to mine their claims again, but this time tell them they are to apply what they learned from their first experience. Again, have them restore the claims.

Debrief: Ask students what they learned. Who is responsible for preserving the mining claims? Should it always be left to the miner? Ask students if there are any comparisons between their mining claims and the Earth. ■

(Borrowed with permission from "Shaping the Environment: A Teacher's Guide," developed by Kimberly Agee, Ellery Miller, Jr., Eric Mondschein. For more information, contact Lorrie Monprode-Holt, OPI (444-2979).

Things you might try, see, participate in, or do for Earth Day

- You might investigate "Greenworks," a partnership between Project Learning Tree and the U.S. Junior Chamber of Commerce. Contact Russell Hartford, science specialist at the Office of Public Instruction, for more information (444-4439).
- If you are looking for environmental education activities for elementary students, you might send for "Water Education, Grades K-6," for \$4.75, from International Office for Water Education, Utah Water Research Laboratory, Utah State University, Logan, UT 84322-3200 (801-750-3186).
- You might write for:
 - a catalogue from the Wetlands Planning Unit, Environmental Protection Agency, 345 Courtland St., Atlanta, GA 30365 (404-347-2126);
 - the "Renewable Energy Fact Sheets," from American Wind Energy Association, 777 N. Capitol St. NE, Suite 805, Washington, DC 20002 (202-408-8988);
 - a catalogue from Zero Population Growth, Inc., 1400 16th St. NW, Suite 320, Washington, DC 20036;
 - "A Catalog of Water Conservation Resources," for \$4, from the Montana Watercourse, Montana State University, Bozeman, MT 59717 (994-6671). This is a GREAT catalogue of mostly free environmental education and conservation resources.

- You might join the Montana Environmental Education Association (MEEA) and receive its excellent newsletter, *Bug Net*.
- You might get involved with the Raptor Room, a bird recovery program based in Condon. You and your students can help with this project. Contact: Grounded Eagle Foundation, Inc., HCR 31, Box 900, Condon, MT 59826. Visiting the Raptor Room is a great field trip, and the program provides experts for excellent presentations when time and funds allow.
- You and your students might get involved with ERIC Clearinghouse for Science, Mathematics, and Environmental Education (sponsored by the Office of Educational Research and Improvement). Call 1-800-LET-ERIC for information and to learn how to access their computer networks. Call 1-800-443-ERIC for microfiche or other document delivery options.
- You might order and use "The Wonders of Wetlands," which contains wetlands learning activities for grades K-12. Available for \$12 from Environmental Concern, Inc., Education Department, P.O. Box P, St. Michaels, MD 21663 (410-745-9620).
- You might decide to do an action project of your own that ties in with proposed environmental education core curricula. If so, you might be eligible for a \$500 grant. Contact Kurt Cunningham, Department of Fish, Wildlife & Parks, 1420 E. 6th Ave. Helena, MT 59620 (444-1267). ■

Youth put both brains and brawn to work for conservation

"As there is no shortage of environmental problems that require both brains and brawn to solve, the Montana Conservation Corps seeks work that is both valued and valuable."

That's according to literature from the Montana Conservation Corps, an independent, private, nonprofit corporation that offers challenges to young people and solutions to natural resource issues. Modeled after the Civilian Conservation Corps developed during the Great Depression, the youth corps is part of a national movement directed toward helping young people build a sense of responsibility and self-worth through challenging, meaningful conservation work.

Since 1991, sponsor groups as diverse as the Forest Service, Montana Power Company, and the Nature Conservancy have contracted with the MCC for conservation and natural resource management work. Sponsors pay about a third of the cost to field a crew. They also provide materials, technical training, and educational programs.

Work crews are the essence of the MCC. Comprised of five to eight young people 16 to 23 years old, plus a crew leader, these crews are charged with implementing the sponsoring organization's work plan. In 1993, 17 crews worked for over 30 sponsors. Crew members slogged through the backcountry to build trails and renovate historic buildings in national forests, repaired two dozen homes for the elderly, planted thousands of trees, built or cleared 100 miles of trail, improved fish and wildlife habitat, logged hundreds of volunteer hours for community service agencies, and cleaned one cave.

In the process, corps members learned leadership, stewardship, cooperation, marketable job skills, and a strong work ethic. They also learned first aid, team work, and career planning. One hundred thirty-five youth enrolled in the program in 1993, including 91 young men and 44 young women.

Corps members commit to 40-hour work weeks and earn minimum wage. The work week includes eight hours dedicated to education and personal development. Some corps members have earned their GED while in the program.

For more information, contact the Montana Conservation Corps, 321 E. Main, Room 405, Bozeman, MT 59715 (587-4475). ■



"E = mc²": Energy conservation in schools

Last summer, the Office of Public Instruction, along with the Montana Department of Natural Resources and Conservation (DNRC), the Board of Investments, Montana Power Company, and Johnson Controls, hatched an energy conservation program for schools called "E=mc²," or Efficiency equals Managing Costs Carefully. The program provides energy audits for school districts (paid with federal funds available through DNRC), recommendations for energy conservation measures, and financing options through the Board of Investments as well as grants and rebates from Montana Power Company.

Montana Power Company is providing money to schools because energy conservation measures help avoid the need for and costs associated with constructing new power plants. The company will give technical and financial aid to districts to convert to energy efficient lighting and heating systems.

The program was promoted at the State Superintendent Nancy Keenan's annual conference at Big Sky in September and at the meeting of the School Administrators of Montana, Montana School Boards Association, and Montana Association of School Business Officials in Bozeman in October. (Some of you may have seen a man dressed as Albert Einstein running around handing out compact fluorescent light bulbs at these conferences.)

As of the end of March, DNRC reports that 25 to 30 school districts are participating in E=mc². Your district may want to look into this program as a way to save money in its operating budget—money that can be freed up for other needs. For more information, contact Connie Onstad, Energy Division, DNRC, P.O. Box 202301, Helena MT 59620-9983 (444-6777). ■

Montana Natural Resources Youth Camp

What do water, wildlife, mining, river rafting, great meals, and campfire singing have in common? Where can students learn more about forestry, range, and wildlife management? They're all at the Montana Natural Resources Youth Camp, held each year at Lubrecht Forest, 35 miles northeast of Missoula.

This award-winning camp will be held July 31 - August 6. The camp is open to youth entering grades 10-12, on a first-come, first-served basis. The application deadline is May 15.

The camp program is taught by a team of resource professionals and educators. More than 20 individuals contribute to the campers' learning experience. Well-known wildlife biologist Vince Yannone will present his wildlife program, and Ron Theriault of the Confederated Salish and Kootenai Tribes will discuss American Indian attitudes toward natural resource management.

Applications can be obtained by contacting your county extension agent; conservation district; or the camp youth coordinator, Craig McCollim, 1753 Moffitt Gulch Rd., Bozeman, MT 59715.

The full cost of the camp is \$175, which includes room, board, instruction, and camp supplies. Campers pay \$75, and camp sponsors provide the remainder of the fee. ■

Transportation

(Continued from page 7)

flow and oxygen. Walking is one exercise that stimulates both the body and mind this way.

(Sources for these transportation activities include *The Walking Wellness Teacher's Guide*, Robert Sweetgall and Robert Neeves, Ph.D.; and the Bullitt Foundation, Seattle, Washington.)

Try Another Way student challenge

The Division of Traffic Education at the Office of Public Instruction is looking for learning activities that educate students about issues related to transportation and the environment.

If you have conducted such an activity, you are encouraged to submit a description. Identify the three most important things students learned about the transportation system and related environmental issues. Also, identify any additional results of the activity.

Submissions will be published in the fall 1994 SOS newsletter distributed by the Division of Traffic Education. Send your submissions to Mary Cheryl Larango, Bicycle/Pedestrian Safety Specialist, P.O. Box 202501, Helena, MT 59620-2501.

Resources

Car Smart, ARCO, 1990. A video designed to help inform students about pollution from motor vehicles. 23 minutes. Grades 8-12. Available on loan from the Office of Public Instruction (444-0516). ■

Reading Under the Montana Skies

State Reading Council Readers' Choice Program

The staff of the *Montana Reading Journal* offer you an opportunity to promote good literature in Montana classrooms. "Reading Under the Montana Skies" Readers' Choice Program divides book lists for students into two age divisions—primary and intermediate. Both lists include books written with a western setting or topic. Students are asked to read or listen to at least two titles from a list of 10 and then vote for their favorite book. Not only does the program give teachers an opportunity to encourage students to read, teachers will be eligible for prize drawings just for participating!

Participation is simple.

1. Post or distribute copies of the book list. Students may participate in both primary and intermediate divisions as long as they have read or listened to a minimum of two books on each list.

2. Promote and make available the titles on the book list.

3. Before summer vacation, ask

students who have read or listened to at least two of the titles from the book list to vote for their favorite book. Copies of the ballot are in the *Montana Reading Journal* and may be obtained by contacting a Montana State Reading Council member or June Atkins, Office of Public Instruction (444-3664).

4. Send in the tallied count of the books chosen using the Teacher's Report form. (Do not send the ballots.) Send the information to *Montana Reading Journal*, 2012 Mariposa, Billings, MT 59102, by June 10, 1994.

5. For additional information, contact June Atkins.

The names of all teachers who mail tallies by June 10 will be entered in prize drawings. Winners will be notified by July 15.

BOOK LIST

Primary division

Calico Jack and the Desert Critters
Deputy Dan Gets His Man
The Girl Who Loved Wild Horses
The Golly Sisters Go West
If You Say So, Claude
The Josefine Story Quilt
The Legend of the Indian Paintbrush
Little Sure Shot—Story of Annie Oakley
Pecos Bill
The Rough-Faced Kid

Intermediate division

A Family Apart
The Legend of Jimmy Spoon
Meet Kirsten: An American Girl
Night of the Full Moon
Naya Nuki, Girl Who Ran
The Rescue of Josh McGuire
Sarah Plain and Tall
Sign of the Beaver
Smoky the Cowhorse
Weasel

—Susan Wischman and Carol Annin,
 Big Sky Elementary, Billings



Positions open on Certification Standards and Practices Advisory Council

The Montana Board of Public Education has announced that application forms are available for four positions on the Certification Standards and Practices Advisory Council. The council consists of seven members appointed by the Board of Public Education.

The council meets quarterly but may meet at other times as necessary. The council makes recommendations to the Board of Public Education in the areas of teacher and administrator certification policies; issues of professional practices and ethical conduct; the status and efficacy of approved teacher education programs; and policies related to the denial, suspension, and revocation of education certificates.

The Board of Public Education will appoint four individuals, including one who is currently teaching in grades K-8, one who is

currently teaching in grades 9-12, one who teaches in one of the former categories or is employed as a specialist or K-12 specialist, and one faculty member from an approved teacher education program.

Appointees will serve three-year terms. The person appointed to the at-large position (K-8, 9-12, specialist, or K-12 specialist) will serve a two-year term to fulfill the balance of a term that was forfeited by a resignation.

Individuals interested in a position on the council should submit an application form and resume to the Board of Public Education by April 29, 1994.

Application forms may be obtained by contacting Dr. Wayne Buchanan, Executive Secretary, Montana Board of Public Education, 2500 Broadway, Helena, MT 59620 (444-6576). ■

Who will lead Montana's schools into the 21st century?

Over 50 percent of the principals in America (and Montana) will retire in the next 10 years. Montana is facing a shortage in the supply of applicants to fill principalship openings in districts across the state. The urgent need to attract talented women and men to the K-8 principalship, coupled with the predicted shortage of individuals to fill these positions, calls for a statewide initiative.

The Montana Association of Elementary and Middle School Principals, in cooperation with the National Association of Elementary School Principals, has developed workshops and informational materials for educators who are considering the principalship as a career objective. These programs provide an opportunity to:

- become familiar with the many dimensions of the principalship,
- explore the peaks and valleys in the day-to-day life of a principal,
- reflect on past and present experiences,
- learn from practicing principals and other outstanding educators,
- examine and affirm professional talents and interests,
- develop a vision and create a map for professional life planning.

Do you know the name(s) of excellent educators who have the capability to become excellent principals? If so, please complete the form below. Return it to the Montana Association of Elementary and Middle School Principals, who will send information on the possibilities of becoming an educational leader as a principal of an elementary or middle school in Montana.

Please send a packet of information to:

Name: _____ School: _____

City, State, ZIP _____

Recommended by: Name: _____

School: _____

Return this form to:

Aspiring Principals Committee, Montana Association of Elementary and Middle School Principals, Diana McDonough, Chair, Anderson School, 10040 Cottonwood Rd., Bozeman, MT 59715.

Bridges

Parents learn "inside story" about school

Parents see a lot of negative things about schools in the media, and that doesn't help school/community relations. But one high school in South Carolina found that when parents switched places with their children for a day, communication between school and families improved significantly.

According to Ronald Cowden, principal at Spring Valley High School in Columbia, South Carolina, coming to school for a day gave parents an opportunity to learn the "inside story" about what is really happening in the school and to spread the news to other community members.

More than 500 parents took time off from their jobs to attend school for one day on their children's class schedules. The entire demographic range of parents was well represented, and both fathers and mothers participated.

Parents were encouraged to follow their children's exact schedules: ride the bus, eat in the cafeteria, and take notes in class. Teachers taught their classes just as they would have for their regular students.

Evaluation sheets filled out by parents indicated that the day was a huge success, according to Cowden. Parents learned a great deal about life in today's classrooms, and they gave teachers and administrators valuable input, as well.

Students got the day off, but they were encouraged to fill in for their parents, either at their parents' jobs or by taking care of household duties such as shopping for groceries. Students had to rely on their parents to bring home their homework assignments.

Cowden says the school plans to do two "exchange days" each year. The event requires no extra costs; only a faculty that is committed to making it a success. That was easy at Spring Valley High because faculty were concerned about communications between school and community.

—From "Teaching Tips," *Quest*, publication of the South Carolina Department of Education, November 1993.

"Dispatches" are updates by Office of Public Instruction staff. Staff members may be reached at the phone numbers listed or by writing them at the Office of Public Instruction, P.O. Box 202501, Helena, MT 59620-2501.

ARTS EDUCATION
Julie Smith, Specialist
444-4442

Arts in the news

Arts education has been in the news lately! Several magazines and journals have recently published articles about the value of arts education. If you are interested in reading these articles and are unable to locate copies at your school or through your library, contact me and I will lend you a copy.

- *Teaching PreK-8*, March 1994: "Learning About Learning Through the Arts," pages 38-41. This issue also includes several other articles as a part of a Salute to Youth Art Month.

- *Phi Delta Kappan*, February 1994: "An Arts Education School Reform Strategy" by R. Craig Sautter, pages 432-437. Several other articles are part of this issue's focus on the arts in education.

- The Getty Center for Education in the Arts newsletter, Winter 1993-94: "Learning by Making Art," pages 2-5.

In January, the U.S. Department of Education sponsored a video satellite town meeting on the subject of arts education. Education Secretary Dick Riley and U.S. Deputy Secretary of Education Madeleine Kunin led the discussion with numerous guests and panelists who also responded to questions called in from around the country. If you missed this meeting, it will be broadcast again by the Mind Extension University cable television network, or you can write to me and I will lend you a videotape copy.

Summer institutes being planned

The Montana Visual Art Education Institute and the Creative Writing/Drama Education Institute are again being planned for summer 1994 on the University of Montana campus in Missoula. Tentative dates are June 14-21. These courses are a great way to expand your teaching skills, learn to teach the arts and other subjects at the same time, and share with other Montana teachers working in situations similar to yours. Two semester credits are available. Scholarships will be available.

For more information, contact the Montana Alliance for Arts Education, P.O. Box 2264, Kalispell, MT 59903 (257-3241).

Opportunities/deadlines

The Marie Walsh Sharpe Art Foundation 1994 Summer Seminar Program: This is a scholarship program for artistically gifted high school juniors in public and private schools. Four two-week seminars

are held each summer on the campus of Colorado College in Colorado Springs. DEADLINE: April 13, 1994. Contact Nanette L. Tirado, Program Associate, The Marie Walsh Sharpe Art Foundation, 711 N. Tegen, Suite B, Colorado Springs, CO 80903 (719-635-3220).

Call for Authors—Child Development in Art Anthology: The National Art Education Association is soliciting proposals for possible chapters in a forthcoming anthology, which will present readers with a range of perspectives and positions on child development in art. DEADLINE: April 15, 1994. Contact me for more information.

Dates to remember

April 9-10, 1994—Montana Dance Arts Association Spring Dance Workshop and Summer Scholarship Auditions, Great Falls: This annual event offers instruction in ballet, jazz, tap, and modern dance. The workshop gives teachers and students the opportunity to work with and learn from some of the best dance professionals in the country. In addition to the classes, students ages 12-18 will have the opportunity to audition for scholarships to out-of-state summer dance programs. Montana students have been able to attend such schools as the Milwaukee Ballet School, Martha Graham School of Modern Dance, Lou Conte Dance Studio, and the Jeannette Neill Studio. Contact MDAA, P.O. Box 1872, Bozeman, MT 59771 (585-9551).

April 15-16, 1994—Montana Art Interscholastics (High School State Art Festival), Flathead High School, Kalispell: Flathead High School will host the event this year, and the staff and students are working to put together an exciting festival. Students will have a chance to display their art work and have it critiqued by experienced artists and educators, participate in art workshops in painting, print making, clay, photography, installations, and other areas. Students will also tour art galleries, the Hockaday Art Center, artists' studios, and bronze foundries. Contact Wes Hines (756-5075).

September 1994—the state symphony organization will hold its regional arts leadership conference at Big Sky the last weekend of September. The conference targets volunteers who are working for arts organizations in both board and programmatic areas. To receive registration materials later this spring or for additional information, contact MASO president, Nancy Simmons, Billings (259-8623).

MOTORCYCLE SAFETY
Jim Bernet, Specialist
444-4569

Training gears up
The Montana Motorcycle Safety

Education Program (MMSEP), administered by the Office of Public Instruction, will again be offering quality motorcycle rider training at several sites across Montana. Courses for novice riders consist of about eight hours of concentrated classroom study and 12 hours of individually coached, on-bike skills training. The MMSEP provides all materials including training motorcycles.

Successful completion of an MMSEP course is accepted by the Division of Motor Vehicles in lieu of the state riding test for motorcycle endorsement. Although courses are open to all ages, this fact alone is a strong inducement for many younger riders to take an MMSEP course.

For information about courses nearest you, please contact me.

BICYCLE/PEDESTRIAN SAFETY
Mary Cheryl Larango, Specialist
444-0516

Did you know?

- At least one-third of all emergency room visits nationwide involve ill and injured children.
- Trauma is the most common killer of children over one year of age; much of this trauma is preventable.
- Each year, injuries kill over 20,000 children 19 and under and disable at least 50,000 more.
- Each year, almost 16 million children are seen in emergency rooms for their injuries.
- The cost for a lifetime of custodial care for a child with severely disabling injuries is about \$2.5 million.
- One in every 6.5 children entering kindergarten will be killed or injured in a highway crash before they graduate from high school.
- Over 75 percent of all highway crashes occur within 25 miles of home. Motor vehicle crashes happen when you least expect them—even close to home at slow speeds or on dry roads.
- Drivers wearing safety belts have more control over the car in emergency situations. They are therefore more likely to avoid a crash.
- You should buckle up every time you get in the car and be sure everyone else does too.
- Children should sit in the back seat of the vehicle.
- Wear safety belts correctly—lap belts should be low and snug on the hips with no slack in the shoulder harness.
- 5,546 pedestrians were killed in traffic crashes in 1992.
- Before crossing, pedestrians should stop at the edge, look left-right-left before entering the street, and keep looking as they walk.
- Six times as many children die walking as bicycling. The majority of injuries though, occur to bicyclists, and too many of these injuries are permanent!
- In bicycle injuries, riding out of a

driveway without yielding causes injury to 30 percent of all seriously injured children under 15.

- Riding through an intersection without stopping causes another 30 percent.
- Turning left without looking back or yielding causes another 30 percent.
- Most serious bicycle injuries involve head injuries.
- One in seven children suffers head injuries in bike-related crashes.
- 75 percent of all cyclists' deaths involve head injuries.
- Wearing a properly fitted bicycle helmet can reduce the risk of head injury by 85 percent and the risk of brain injury by 90 percent.

Guide to bicycle rodeos

Many communities and/or schools have a bike rodeo in the spring or would like to have this event. Write or call today for your free copy of "A Guide To Bicycle Rodeos." This is an excellent, ready-to-run bike rodeo guide. Activities are described in full detail.

However, there is more to this guide than simply the best bike rodeo manual available. Because I strongly believe that people involved in bicycle safety should know the "hows" and "whys" of their programs, I recommend studying the detailed reference section.

This rodeo was designed to teach real-world skills that kids need to survive on the roads. There are exercises in looking back without swerving, riding straight while missing potholes, and crossing busy streets without getting hit by cars.

All of the lessons relate directly to injury situations that young cyclists encounter.

You may find this rodeo more of a challenge to put on than most. It's easier to run the kids around a "figure eight" than to teach them to look back without swerving. It's easier to have them weave around traffic cones than learn to cross the street without getting hit.

However, the rewards of teaching survival skills are so much greater. You can really raise the awareness of the parents and community to the risks young cyclists face. A bicycle rodeo can be a good stepping stone for implementing the in-school Elementary Traffic Education Curriculum. Please contact me for details.

Montana Tranplan 21

Transportation planning is on a new course for the next century. The Montana Department of Transportation (MDT) is developing an "intermodal transportation plan." Individuals, businesses, institutions, and government agencies are asked to work closely with MDT to shape the plan. If you have concerns regarding walking, bicycling, or other transportation modes, contact MDT, P.O. Box 101001, Helena, MT 59620-1001 (444-7646). Request the *Transportation Planning Newsline* to keep informed on this plan and to make your comments.

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CHAPTER 1

Joan Morris, Specialist
444-3083

Fall conference

Once again, it is time to plan for the annual Montana ESEA Chapter 1 fall conference. Due to the large number of participants expected, the conference will be held at the Holiday Inn Billings Plaza, September 28-30, 1994. The primary goals of the fall conference are: 1) to provide inservice training opportunities for Chapter 1 personnel and school administrators who direct the Chapter 1 programs, and 2) to encourage conferees and presenters to discuss common interests during conference sessions.

These sessions are provided to update teachers, administrators, and instructional aides in the latest and most innovative trends for educating "at risk" students. Sessions will be presented by educators from Chapter 1 projects, National Diffusion Network (NDN) projects, the Chapter 1 Technical Assistance Center (TAC), the Rural Technical Assistance Center (R-TAC), and Office of Public Instruction staff.

All interested persons are encouraged to submit a proposal to the Chapter 1 office. If you wish to obtain a proposal and conduct a session, call the Chapter 1 office at 444-5660. The deadline for submitting proposals is May 1, 1991.

TRAFFIC EDUCATION

Curt Hahn, Specialist
444-4432

Teacher preparation courses

Montana State University-Northern will be offering the following courses/workshops for the Traffic Education Minor during the 1994 summer session: Consumer Mechanics, Traffic Safety Education I, Traffic Safety Education II, School Safety Education, Motor Vehicle Law and Enforcement, Traffic Education Curriculum Guide Review, First Aid and CPR Instructor Training, and Motorcycle Safety.

For more specific information on these courses, contact MSU-Northern. If you have questions about this Traffic Education Minor, contact Dr. Gerald Bekker, MSU-Northern, Box 7751, Havre, MT 59501 (1-800-662-6132).

Vacancy announcement

Sweet Grass County High School in Big Timber is looking for a qualified teacher to conduct its 1994 summer high school traffic education (driver education) program. For details, contact Richard L. Webb, Superintendent, Sweet Grass County High School, P. O. Box 886, Big Timber, MT 59011 (932-5993).

1994 traffic education conference

The 1994 OPI/MTEA state conference/workshop will be held April 24-26, 1994, at the Park Inn, Lewistown. Montana State Univer-

sity-Northern will be offering one semester credit. The Office of Public Instruction will be offering 15 renewal units. The conference begins 11 a.m. Sunday and concludes Tuesday at 1 p.m. All participants must preregister by April 8! We look forward to seeing you there.

Obtaining traffic education films and videos

To order traffic education films and videos, contact Mike Schulz, Western Montana College, Carson Library, 710 S. Atlantic, Dillon, MT 59725 (1-800-WMC-MONT, or 683-7541, or fax at 683-7493).

Traffic education approval renewal

If your teaching certificate expires this June, so does your approval to teach traffic education. If you need an application to renew or other assistance, call Karen Mulcahy at 444-3126.

Have you moved? Are you retiring?

Do you wonder why you haven't been receiving our mailings? Please send us your new address and phone number so we can update our records. If you are planning to retire at the close of this school year, or if you know of another traffic educator who is, please let me know as soon as possible.

Worth thinking about

If you have tried to do something and failed, you are vastly better off than if you had tried to do nothing and succeeded. (Source unknown.)

Status Report

If you would like to receive this informative publication FREE from the Insurance Institute for Highway Safety, call 703-247-1500.

Buckle up registry

If you would like to receive this informative publication FREE from the National Safety Belt Coalition, call 202-785-4151.

Reminder

Submit your reimbursement request forms to OPI's Division of Traffic Education UPON COMPLETION of EACH program you conduct. Thanks!

GIFTED & TALENTED

Michael Hall, Specialist
444-4422

Live via satellite from the National Research Center on the Gifted and Talented: A unique training opportunity for classroom teachers called "Curricular Options for 'High-End' Learning" will air Wednesday, May 11, 1994, 3:30-4:30 p.m., Eastern Daylight Time.

The program will be followed by an hour-long, call-in question and answer session. Observe actual lessons with students involving communication and spatial skills using math manipulatives, hands-on science investigations with discrepant information, whole classroom participation in a problem-based social studies learning

activity, and organizing enrichment clusters for differentiated instruction.

In this broadcast, you'll learn how to modify curriculum to enhance learning opportunities. Participants will receive accompanying lesson plans which include curricular extension activities. A \$100 fee covers the cost of the above items and unlimited enrollment. For more information, contact Dawn Guenther, Dissemination Coordinator, University of Connecticut-NRC/GT, 362 Fairfield Rd., U-7, Storrs, CT 06269-2007 (203-486-4676).

Summer excitement!

Mark June 16-17 on your calendar! Doug Sebring, national presenter from Ohio, will present a course on multiple intelligence for classroom teachers. This course will address the seven intelligences and how to teach through the multiple intelligence approach. Please plan to attend. Ten OPI renewal units will be granted. The course will be held at Lincoln Center in Billings. The cost is \$50. To register, contact Stephanie Smith, 3091 S. Daffodil, Billings, MT 59102 (255-3567, work; or 652-3720, home).

PUPIL TRANSPORTATION SAFETY

David Huff, Specialist
444-4396

Advanced driving school

Montana Advanced Driver Education Workshops are being offered between June 6 and August 6, 1994, in Lewistown. This is an excellent opportunity for school bus drivers to further develop advanced vehicle handling techniques in a school bus. Techniques taught will include defensive driving and behind-the-wheel skills in evasive steering, controlled braking, skid control, off-road recovery, cornering, and serpentine. Applications and information have been sent to all Montana schools but can also be obtained by calling 444-3126.

Drug and alcohol testing

The final rules for drug and alcohol testing for all commercial vehicle drivers (including all school bus drivers) were published by the National Highway Traffic Safety Administration on February 15, 1994, in the Federal Register. The deadlines for implementation include January 1, 1995, for employers of more than 50 covered employees (those with a commercial driver's license); and January 1, 1996, for those with 49 or fewer employees.

Since this law is in direct conflict with Montana labor laws, Montana will need a chance to review and decide how to respond. Most Montana school bus employers will not need to implement the law until January 1, 1996. Most employers who have over 50 covered employees and are subject to the January 1, 1995, deadline are already connected with a drug and alcohol testing group. With the possibility of a few exceptions, pupil transpor-

tation employers should not be under any big rush to implement.

I am hoping that a Montana response to these laws can be made in a timely manner and that we can recommend directions and options. However, it would not surprise me if the state deferred legal action until the 1995 legislative session. The federal law will affect many other groups besides bus drivers, including the state Highway Department.

I recommend that you maintain patience and wait for a state response. If you feel your district must begin plans for implementation prior to the state's response, I have information on some national consortia which would like to do business in Montana. We will keep you posted as information becomes available.

Exit requirements on school buses

Exit requirements for school buses changed on August 15, 1993, with the publication of "Standards for School Buses in Montana." Another federal law goes into effect on May 2, 1994, which further defines required emergency exits on school buses.

When ordering new buses, make sure you specify that the emergency exits comply with both the 1993 Montana standards and the May 2, 1994, Federal Motor Vehicle Safety Standard 217. Debate continues, and modifications may be made to the federal standard which could change the actual exit configuration. The number, size, and location of exits depend on the passenger capacity of the bus.

MAPT workshop reminder

Dates for the Montana Association for Pupil Transportation summer workshop are June 22-24, 1994. The workshop will be held at the Holiday Inn in Billings.

LANGUAGE ARTS

Jan Hahn, Specialist
444-3714

Curricular framework update

During its February work session, the Arts and English Curricular Framework Team designed curriculum segments around "Aesthetic Encounters" with celebrations, symphonies, theater, storytelling, and local history. Sixteen thematic units, seminars, and inquiry-based instructional units were drafted for topics such as balance, mortality, aesthetics, ambition, and courtship.

The team met for three days, during which team members debated the issues surrounding integrated curriculum, assessment, and national standards; participated in a media literacy workshop presented by Lynn Merrick of Bozeman; and collaborated around computers to continue writing the framework. Tom Mollgaard of Choteau High School joined the team in February due to a resignation.

As the draft document stands now, the instructional portion of the framework will be organized by

balancing "Aesthetic Encounters" with "Creative Acts." At the center are integrated standards based on the national standards for arts education and for English language arts. We now have five or six general, integrated standards (we may label them achievements, outcomes, accomplishments, or goals) under each of four categories: Perceive and Analyze, Create and Perform, Interact and Reflect, and Connect Cultures and other Content Areas.

The aesthetic encounters may take place in the studios, museums, theaters, concert halls, classrooms, and parks of the community. For example, students could experience African drumming by attending a community concert or a workshop on drumming sponsored by the local arts council or center for the performing arts. From an encounter such as that, students accomplish the curriculum's outcomes through inquiry-based instruction, thematic units, seminars or discipline-based activities that occur in regular classes, block-scheduled interdisciplinary classes, or fine arts courses.

Either as a response to the encounter or as preparation for the encounter, students will engage in creative acts, such as performances, projects, products (such as painting or poetry), or exhibits. The community provides both the resource in the aesthetic encounter and the audience for the creative act. The community could be a "live" audience by attending a performance or exhibit, or it could be the audience for a student publication or portfolio. Assessment will be based on these demonstrations, with performance criteria arising from the outcomes. As with the encounters, cultural significance and quality are primary criteria for selecting the creative acts.

This curriculum will achieve the best results if delivered through instruction that critically explores perception and achieves understanding through doing. The topics, themes, and encounters selected for students to experience should be generative; that is, they should contain a rich array of genuinely meaningful connections to students' lives. Since such experiences may generate many different understandings, the integrated outcomes provide the focus.

An underlying purpose of the framework is to achieve a balance of educational experiences between the humanities and the sciences. Both fields involve the use of symbols to create meaning. However, the Center for Arts in the Basic Curriculum is convinced "that the present focus on a student's logical/sequential skills, or the basic '3 Rs,' is not the panacea for U.S. education." Beyond the logical/sequential intelligence typically emphasized in the instruction of cognitive sciences, we also have visual, musical, kinesthetic, social, and introspective

intelligences, according to Howard Gardner. The arts/English curricular framework is perhaps unique in its ability to encourage learning on all these other levels of intelligence. The framers of this curriculum are cooperating with participants in the SIMMS math/science project to ensure that the two frameworks balance one another intellectually.

As outlined in the January/February issue of *Montana Schools*, we are anxious to involve as many people as possible in critiquing and adapting the materials that this curriculum produces. I already have a few teachers who are willing to pilot some of the lessons. Please call me or a curriculum team member if you are also interested in piloting lessons or learning more about the framework. The next meeting of the curriculum team will be held in Helena, April 21-23. Please consult the November/December issue of *Montana Schools* for a list of curriculum-writing team members.

The advisory committee constitutes another important group working on the Arts and English Curricular Framework. The advisors include Randy Bolton (University of Montana), Chris Brewer (Kalispell Creativity Center), Ray Campeau (Bozeman), Corwin Clairmont (Salish Kootenai College), Becky Davis (Billings Central), Ann DeOnis (Montana State University), Bev Fox (Helena), Harold Gray (Spirit Talk Press), Jim Kriely (U of M), Joe Malletta (Bigfork superintendent of schools), Beck McLaughlin (Helena Presents), Fran Morrow (Montana Arts Council), Claudette Morton (Western Montana College), Garth Petrie (U of M), Lynda Sexson (MSU), and William Thackery (Northern Montana College). Teachers interested in the framework may contact these people with suggestions and questions.

National standards

The second draft of the National Standards for English Language Arts is now available from the National Council of Teachers of English and the International Reading Association. Both NCTE and IRA are attempting to gather as much input as possible from practicing teachers throughout this country as they develop and revise these standards. If you are interested in reviewing the document, please contact me or another review committee chair, Carolyn Lott, at the University of Montana.

This latest version contains eight to 10 standards under three categories: Language, reading, and writing. References to media (radio, television, and computer networks) are found under the language strand. I have sent NCTE a listing of all schools and English teachers in Montana, so you may receive a mailing from NCTE regarding these standards this spring.

Fall conference

Members of the Montana Associa-

tion of Teachers of English Language Arts have received applications to present at the fall conference in Billings, October 20-21. Deadline for these proposals was March 18. If you did not submit a proposal but would like to present at MEA on a language arts topic, please contact Katy Paynich, Bozeman Senior High, as soon as possible. The MATELA theme is "Expanding Our Circle: Teaching and Learning in the 21st Century."

READING

June Atkins, Specialist
444-3664

Montana reading program

"Reading Is A Natural," the 1994 statewide reading project, is on its way! The year-long project emphasizes the need for understanding the environment and highlights animals that live in Montana. The manual provides a springboard of ideas for teachers, librarians, and parents to launch children on an exciting voyage of learning.

The reading project, coordinated by the Office of Public Instruction and the Montana State Library, is sponsored by the Montana State Reading Council, Delta Kappa Gamma, Alpha Mu State, and Women's Clubs of Montana. All librarians (school and public) will receive a manual of reading and communication activities and ideas for children of all ages and their parents.

A second component of the program will be a summer calendar of reading activities. A master copy of the calendars will be sent to each building principal. They should arrive at your school by May 1.

Please join the 1994 statewide reading project. Help encourage children and their parents to make reading a family value and a lifelong habit. It is exciting to be involved in a project that connects public libraries, schools, and organizations in encouraging family literary.

Upcoming conferences

IRA Conference, Toronto, Ontario, Canada, May 8-12, 1994.

Five Valleys Reading Conference, Missoula, U of M, October 1, 1994. Contact Dave Christensen (273-6141).

Montana State Reading Conference, October 20-21, 1994, Helena, Colonial Inn. Contact Kathie Elder (442-5550) or June Atkins (444-3664).

Tenth Rocky Mountain IRA Regional Conference, Billings, Montana, October 19-21, 1995. Contact June Atkins (444-3664) or Barbara Walker (657-2091).

LIBRARY MEDIA

Diana Loble, Specialist
444-3132

Shrinking funds

Funds for school programs are shrinking rapidly. The Office of Public Instruction is concerned not only about this but also about ways we can diminish its impact on our

schools. Communication is one of the first steps. Resource sharing is another. To this end, State Superintendent Nancy Keenan invited 10 library media specialists to meet with me in Helena. Our goal was to explore ways OPI can support the work of library media specialists throughout the state.

"Improve communication" topped our list of priorities. We explored the exciting possibilities of telecommunications, including substantial use of Montana's METNET plus access and training in the use of Internet and all on-line services.

Other concerns followed closely on the heels of "communication." They included:

- the need to redefine the role of library media specialists as information specialists, teachers, and instructional consultants;
- the need for library media teacher education standards to reflect the changing needs of the library user;
- the need for multi-type library cooperation;
- the need to know where automation is in Montana libraries and schools;
- the need to know technology's place in teaching/learning;
- the need for a clearinghouse for grant availability (not to mention training in how to apply for grants);
- the need for a clearinghouse for discounts in multiple buying.

These needs are vital to the survival of libraries in the information world. And the survival of libraries in the information world is essential. Libraries are clearinghouses for information, centers for resources, and bastions of intellectual freedom.

Our information world is limited by shrinking resources. Shrinking resources mandate sharing resources. Sharing resources mandates communication.

And so we are back to communication. We had lots of good communication at this meeting. We need to work together to keep this communication going. We will address this information and these concerns at the Montana Library Association's School Library Media Division meeting in Butte, April 24-27. Look for time and place information in the Montana Library Association program, which you will be receiving shortly.

My thanks to participating library media specialists Dan Kohnstamm, Polly Taggart, Barbara Ridgway, John Meckler, Vicky Gale, Nancy Norman, Peggy Smith, Judy Stephenson, and Carole Monlux. We missed Tom McPhee, who was snowbound in Plevna.

A recommended book

Mr. Tucket by Gary Paulsen: a rip-roaring adventure of the coming-of-age of a courageous pioneer boy.

SOCIAL STUDIES

Linda Vrooman Peterson, Specialist
444-5726

(Continued on page 14)



(Continued from page 13)

Montana Geographic Alliance

The Montana Geographic Alliance will hold a summer institute, "In the Shadow of the Rockies," for K-12 teachers, June 24-July 2, 1994, using the Pine Butte Swamp Preserve near Choteau and the Bob Marshall Wilderness as classrooms. This residential program will give teachers the opportunity to learn more about geographic content, instructional strategies and materials, and techniques for inservice presentations. Participants will receive full scholarships covering transportation (round-trip mileage to the Seven Lazy P Ranch) and room and board. Applications must be postmarked by April 22, 1994, to be considered. The institute is limited to 20 participants. An orientation weekend is planned for May 13-14 in the Lewistown area.

Those who complete the program will be designated as teacher consultants for the Alliance. Teacher consultants are expected to organize, develop, and lead geographic education programs and projects at their schools and/or in their districts with support from the Montana Geographic Alliance.

The Montana Geographic Alliance is a consortium of college and university geographers, classroom teachers, educational administrators, state and local education policy makers, and other concerned individuals who work together to strengthen geographical education in the Montana schools. The Montana Alliance, affiliated with similar alliances in all 50 states, was activated in April 1992.

The Public Policy Research Institute on the campus of the University of Montana provides the focal point for Alliance activity. The program is coordinated and implemented by the Institute and the Montana Office of Public Instruction.

For more information about the Alliance and the summer institute, please contact me at the number above or Jeff Gritzner (243-5626) at the Public Policy Research Institute.

MCSS fall conference

The 1994 Montana Council for the Social Studies fall conference, in conjunction with the Montana Education Association Convention, will take place in Billings at Castle Rock Middle School, October 20-21.

The planning committee is preparing the program for this convention. As always, we want a program that is timely and interesting and one that will contribute to professional growth. We need your help; you are encouraged to become involved and offer a sectional.

"Respect and Understanding of Human Difference" is the working theme of the 1994 conference. Tentative plans include a seminar on current world affairs by individuals who have studied or lived outside of the United States. Other activities include: MCSS Luncheon and Forum on Thursday, October 20; MCSS Reception, Thursday evening, October 20, at the Western Heritage Museum; MCSS business meeting and pizza, Friday, noon-1:30 p.m. in

the MCSS hospitality room at Castle Rock Middle School.

For more information, please contact me at the number above or Bruce Wendt, Billings West High School, 2201 St. Johns Ave., Billings, MT 59102 (255-3670). We look forward to hearing from you.

MATHEMATICS

Diana Oldham, Specialist
444-4436

Math Solutions taught in Kalispell

Kalispell Junior High School will again be the site for Math Solutions K-8 courses. Both Math Solutions I and Math Solutions II will be taught June 20-24, 1994. Both courses involve problem solving, cooperative learning, the use of manipulatives, writing in the math class, and assessment. At each level, participants work not only with their grade level but in mixed-level groups discussing mathematics, grading, management, and other educational issues in changing mathematics education. For registration forms, contact Marilyn Burns Education Associates (415-332-4181).

The course costs \$315. You are encouraged to investigate the use of Dwight David Eisenhower Math/Science funds available in your district to pay for the course. College credits will be available.

Some Kalispell teachers will host participants from outside the area in their homes to help reduce costs. Jolene Froelich is the Kalispell coordinator. Contact her at 756-5067.

Mathematics and Medicine Week

The week of April 25, 1994, has been declared national Mathematics and Medicine Week. Mathematics is playing an increasingly complex role in our society as we become more technologically literate. In this rapidly changing, globally oriented information age, the study of mathematics is a vital component of future success. One of the National Education Goals is for America's students to be number one in mathematics by the year 2000. In Montana, mathematics educators, business and industry, and government are working together to attain this goal.

CHAPTER 2

Kathleen Mollohan, Specialist
444-4317

Chapter 2 retained in House committee

By a vote of 41 to 1, the U.S. House Committee on Education and Labor approved an amendment that essentially reinstates a Chapter 2-like program into the proposed reauthorization of the Elementary and Secondary Education Act. What will happen to this amendment when the full House meets and how the Senate will respond is anyone's guess. But for now, the public pressure not to abandon the one source of flexible federal funding for school improvement has been heeded.

Paperwork reduction option

For the 1994-95 school year, districts have the option to designate either their high school or elementary district as the prime recipient of Chapter 2 funds. This means a district can apply for funds and report as a single project. The application form is not greatly changed, but please read the instructions carefully. This option is not available to officially designated K-12 districts, since they now apply as a single district. Application packets will be mailed in early April.

Please note, also, a change in the program narrative portion of the application. This year, you will be required to summarize your planning process. There is enough evidence from our Chapter 2 program reviews to tell us that this federal requirement is sometimes overlooked. If you need any assistance in structuring a planning procedure, please contact me.

NATIONAL DIFFUSION NETWORK

Patricia B. Johnson, Specialist
444-2736

National Diffusion Network (NDN) educational programs work in Montana because they are research-based, proven, cost-effective, and transferrable.

Summer opportunities

Thirty-five life science teachers in grades 7-10 will be trained at the Bronx Zoo, August 1-6, 1994, in *Project WIZE, Survival Strategies*. This program stresses concepts in ecology, wildlife conservation, and species survival.

A six-day workshop in *Investigating Environmental Issues and Actions* is being planned for this summer in Montana. This course teaches students to evaluate both scientific and social aspects of environmental issues in their own communities.

Summer training workshops in *Jeffco Middle School Life Science* will be held in Golden, Colorado, June 6-13, 1994.

All *Talents Unlimited* teachers are invited to attend the Talents Unlimited National Conference, July 28-31, 1994, in Destin, Florida.

Program highlights

Teaching Activities for Language Knowledge (TALK) is an innovative instructional program that improves expressive and receptive oral language skills in grades K-3.

Classroom Management and Organization Program (COMP) provides teachers in grades 1-9 with the necessary classroom management skills upon which all instruction is built. Use of the program improves student behavior and academic achievement.

Project CLIMB is an innovative project providing a hands-on approach to developing materials, activities, and strategies to integrate the teaching of reading, writing, and thinking across the K-12 curriculum.

ADAPTING for the Learning Disabled Adolescent helps regular classroom teachers, grades 6-12, assimilate learning disabled students without

taking an inordinate amount of time from the regular students.

Life Unworthy of Life is a self-contained holocaust curriculum unit for infusion into high school history courses. The program uses innovative classroom exercises to help students examine contemporary issues of prejudice, racism, and democratic values.

FISHBANKS, an engaging group simulation assisted by a micro-computer, creates profound insights into a major environmental issue. Designed for grades 9-12 and college, this simulation can be used for interdisciplinary, science, economics, or social studies classes.

Chapter 1 HOTS (Higher Order Thinking Skills) is a general thinking skills program for at-risk students. Training in HOTS for Chapter 1 teachers is planned for June.

Project Success reaches the whole child through reading, writing, and artistic expression; grades 2-8. Call for a list of planned training sessions.

Kindergarten Integrated Thematic Experiences (KITE) is a success-oriented, integrated kindergarten curriculum that uses developmentally appropriate thematic units. KITE training will be offered at the University of Montana in Missoula in June.

Books and Beyond, a family literacy program, decreases indiscriminate TV viewing and increases recreational reading. Training in Books and Beyond is available in early fall only.

NDN trainers meeting held

Nationally certified trainers from all over Montana met in Helena last month to share programs and ideas. One participant termed the experience a "meeting of hearts and minds, with laughter."

Curriculum directors

One copy of the directory of National Diffusion Network programs is available from me for the person in each district responsible for curriculum.

Scheduling training sessions

To schedule a training session, obtain more information on NDN programs, or to be added to the NDN newsletter mailing list, call me at the above number.

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can't breathe,
nothing else
matters

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FELLOWSHIPS/AWARDS

Fellowship Program

The International Education Center (IEC) has announced its fellowship program for the summer of 1994. IEC specializes in arranging study programs for educators and students. The IEC fellowships (\$1,200) cover part of the total expenses for the program. Apply immediately since fellowships are limited to a first-come, first-served basis. Contact Jack Scheckner, IEC, Bowling Green Station, Box 843, New York, NY 10274 (800-292-4452, 6-9 p.m. Eastern Time).

Special Populations

Applications are still available for the fifth annual National Recognition of Exemplary Programs Serving Special Populations. Conducted by the National Center for Research in Vocational Education (NCRVE), the program is open to all programs providing vocational services to youth and adults who are members of special populations. Programs may be in secondary, postsecondary, and/or community settings and must have been operational for at least two years. Groups served may include individuals who have disabilities, are educationally and economically disadvantaged, have limited English proficiency, participate in programs designed to eliminate gender bias, or are in correctional institutions. Urban programs and programs with strong performance standards, integration of vocational and academic education, and tech prep components are especially encouraged. For more information, contact Dr. Zipura Burac Matias, University of Illinois, 345 Education Building, 1310 S. 6th St., Champagne, IL, 61820 (217-333-0807).

RESOURCES

Grant information

If you are concerned about dwindling funding and increased demands on your local schools, you can't afford to ignore the enormous benefits of having an independent, nonprofit organization devoted entirely to generating new school revenue and resources. School foundations across the county are raising thousands, even millions, of dollars in additional support for their schools. *The School Foundation Workbook: A Step-By-Step Guide to Developing New Funding Sources* covers all the aspects of developing a successful school foundation. The workbook costs \$72. Contact Capitol Publications, P.O. Box 1453, Alexandria, VA 22313-2053 (800-221-0425).

WORKSHOPS

Facilitated communication

A two-day workshop on facilitated communication will be offered June 10-11, 1994, at Eastern Montana College. Facilitated communication is a means of facilitating expression by people who either do not talk or do not talk clearly. The method involves using a picture board, keyboard, or similar device for facilitating communication. The workshop will focus on how to get started and move forward with facilitated communication, and how to use the approach within general education classrooms and integrated community settings. The cost of the two-day workshop is \$90, which includes materials and refreshments. Stipends may be available for a limited number of parents. One graduate credit is offered through Eastern Montana College. Contact Daniel E. Steere, coordinator, Technical Assistance and Community Education, Montana Center for Handicapped Children (657-2312).

Presidential Classroom

A Presidential Classroom for Young Americans has announced the 1994 Senior High School Program, which offers an exceptional civic education opportunity. During their week in Washington, D.C., young leaders meet with the nation's influential leaders; see Congress in action; meet with their congressional delegates; debate current issues with student leaders from across the U.S. and abroad; and visit the world-famous monuments, memorials, and museums of Washington. For more information, call 1-800-441-6533.

Peer helpers

The 1994 National Peer Helpers conference will be held in Portland, Oregon, June 25-28, 1994. Topics will include experimental learning, conflict mediation, and adolescent development. Contact Lydia McDaniel-Smith, 5004 23rd Ave. SE, Lacey, WA 98503 (206-923-0462).

Early literacy

A summer institute called "Building Equity in Early Literacy: A Team Approach" will be held July 24-28, 1994, at Western Montana College in Dillon. The Northwest Regional Educational Laboratory is offering this institute as a unique opportunity for elementary schools to improve their literacy programs by moving away from traditional ways of teaching reading and writing to contemporary models that emphasize literacy. Contact Anita Waugh (503-275-9592).

New school of thought

A free, one-day seminar sponsored by Apple Computer called "A New School of Thought" is designed exclusively for school principals. It approaches a variety of education issues from a school management perspective. The seminar includes sessions for elementary, middle school, and high school superintendents. The seminar will focus on how technology can help principals deliver quality education. The seminar will be held April 11, 1994, at the Colonial Inn in Helena. Call 1-800-284-8338, ext. 200, to reserve your space.

Pacific synergy

The Pacific Synergy Summer Institute, an experience in gifted and creative education and a celebration of lifelong learning, will be held at Lewis and Clark College, August 7-12, 1994. The institute features the Schoolwide Enrichment Model, student interest-based learning, thinking skill development, creativity enhancement, developmentally appropriate practices, integrated curriculum, and assessment strategies. Pacific Synergy is a corporation directed by four teachers who believe that all students have gifts, talents, and intelligences that need to be nurtured by sensitive, creative, professional educators. For more information, contact Catalyst Books, 437 NW 23rd Ave., Portland OR (503-221-4224).

Innovations in honors programs

A 90-minute, live interactive video

teleconference will feature innovations in honors programs, a competition for best student-produced video, and community service programs. The conference will be broadcast April 29, 1994, 10:30 a.m.-noon (Central Time). Receiving sites will be authorized to make one off-the-air videotaped copy of the teleconference. For more information, contact Bob Spurrier or Natalie Bruner, University Honors Program, 509 Edmon Low Library, Oklahoma State University, Stillwater, OK 74078-0375 (405-744-6799).

Paleontology courses

Trex Agate Shop in Bynum and the Old Trail Museum in Choteau will offer hands-on paleontology courses during summer 1994.

The Agate Shop's two-day sessions are conducted throughout the summer. Sessions are limited to 12 persons. Cost is \$125 per person. For information, contact Dino, P.O. Box 796, Bynum, MT (469-2314).

Old Trail Museum's three-day courses begin June 17; the 10-day sessions begin August 1. These courses are conducted in conjunction with the College of Great Falls. Credits are available. Cost is \$250 for the three-day course; \$645 for the 10-day course. Interested individuals should register at the College of Great Falls as early as possible because space is limited to 20 persons per course.

For both the Trex Agate Shop and Old Trail Museum courses, participants furnish their own food and lodging. The courses furnish a qualified instructor, supplies, tools, and transportation to and from the dig site.

For more information on these courses, contact John Brandvold, 161 S. Front, Bynum, MT 59419 (469-2314).

Poetry students

(Continued from page 3)

week working with students and teachers in individual schools, primarily schools on Montana reservations. Fedullo, who also works part-time for the bilingual education program in Pryor, has written a teaching guide to his expressive language approach called "It's Like My Heart Pounding: Imaginative Writing for American Indian Students." He has also published a book called *Light of the Feather—Pathways Through Contemporary Indian America*, which gives his impressions of reservation life today.

According to Daniel Sybrant, superintendent of Pryor schools, the Library of Congress event was "a culmination of a lot of hard work by a lot of people. Mick Fedullo is one of the greatest influences in this school," Sybrant said, "if not in the state of Montana."

"Writing poetry instills a confidence in the students, when they can express what's important to them," Fedullo said. "We're trying to get the word out that Indian kids can do anything." ■

Historical Society opens door to rich source of Montana history

Leading Montana historians such as Michael Malone, president of Montana State University, have long called *Montana The Magazine of Western History* a critical source for researching the state's rich history.

Unfortunately, until now, that sources has been limited to the very patient or to those with long memories.

Hundreds of original scholarly articles on Montana and western history have been published in the national award-winning magazine since the Montana Historical Society began publishing it in 1951. Finding those articles and cross-referencing subjects has been a "painstaking labor to say the least," the magazine's editor, Charles Rankin, said.

Now, however, a newly released comprehensive index to the magazine will make the labor much easier. Malone, who co-authored the definitive *Montana: A History of Two Centuries* with Richard Roeder and William Lang, said the index will greatly enhance research into the state's past. "The index will prove invaluable for all researchers into the history of the state and the region, be they amateur or professional," Malone said.

The index can be purchased through the Historical Society by calling toll-free 1-800-243-9900. ■



CH.A.D.D.

(Continued from page 4)

ate teaching and classroom modifications. Often, children with ADD are found to be eligible for special education and related services. For these children, special education support may range from supplementary aids and services to full-time special education placement.

Helping ADD students reach their potential

Children and Adults With Attention Deficit Disorders (CH.A.D.D.) is a nonprofit organization comprised of parents, health-care professionals, and educators. CH.A.D.D.'s mission is to improve the lives of individuals with attention deficit disorders and those who care for them. Through family support and advocacy, public and professional education, and encouragement of scientific and educational research, CH.A.D.D. works to ensure that people with ADD reach their inherent potential.

CH.A.D.D. is working at the local, state, and national levels. Montana presently has six CH.A.D.D. chapters located in Billings, Kalispell, Cut Bank, Great Falls, Havre, and Helena. CH.A.D.D. support group meetings are invaluable to parents of children with ADD. Schools can refer parents to these groups for assistance and education.

CH.A.D.D. has produced two teacher training tools:

- "The Educator's Manual: An In-Depth Look at Attention Deficit Disorders from an Educational Perspective" is an acclaimed text on ADD in the classroom. Developed in collaboration with leading experts in the field, the manual discusses educational manifestations, identification and assessment protocols, intervention principles and practices, and problem-solving techniques. It is available from the national chapter of CH.A.D.D. for \$10 plus \$2 shipping.

- The Educator's Inservice Program on Attention Deficit Disorders is a comprehensive training program for teachers. Based on the successful educator's manual, it includes a complete script, handouts, and 47 professionally designed, full-color transparencies that make for an informative and attention-grabbing presentation. Each CH.A.D.D. chapter received a copy of the program, which is also available from the national chapter of CH.A.D.D. for \$100 plus \$5 shipping.

For more information, contact:

National chapter:

CH.A.D.D., 499 NW 70th Ave., Suite 308, Plantation, FL 33317 (305-587-3700)

State chapters:

CH.A.D.D. of Billings: Nancy Padon, coordinator (656-2727)

CH.A.D.D. of Flathead Valley: Tammy Otten, coordinator (257-5450)

Golden Triangle CH.A.D.D.: Janine Scott, coordinator (873-2569)

CH.A.D.D. of Great Falls: Julie Wolff, coordinator (452-2479)

Havre Chapter of CH.A.D.D.: Darlene Bricker, coordinator (265-9018)

CH.A.D.D. of Helena: Kay Boyter, coordinator (933-5367)

The second part of this article, which will explore strategies for classroom organization, classroom management, behavioral intervention, curriculum modification, and other strategies found to be effective for educators.

—By Maribeth Goodrich, Secretary/Treasurer of CH.A.D.D. of Helena and mother of a 16-year-old son with ADD.

Young scientists

(Continued from page 1)

raised boas and pythons, keeping a record of the snakes' weight gain compared to food consumed. Based on his research, Theroux concluded that snake protein is more efficient than beef or pork, although he has yet to indulge in a snake steak himself, according to Cusker.

Shawn Hurley's symposium project involved a two-year study of lead in soil, sediment, and plants. His research may lead to an economical method of removing lead from soil. Hurley and Sarah Lord will both attend this year's international Science Fair in Alabama in May.

Why do young Montana scientists do so well? "We have some really good basic education in Montana," Pederson said. "Kids here still have a healthy work ethic. Their attitude is a lot different from kids in big cities." Furthermore, Montana is the only state in the region that pre-screens students for the regional Science Symposium, which means Montana sends its strongest competitors to the event.

The science students themselves are quick to credit their teachers and advisors, who devote many hours of their own time to help students with their research. According to Pederson, Montana has a strong cadre of teachers who are committed to having their students do science research.

Once in awhile, that research leaves even the teachers in the dust. Take Sarah Lord's research on number theory, for example. "Sarah Lord is about the only one in the state who understands her project," said Cusker. "Our kids come up with some really good science." ■

CALENDAR

April 1994

Mathematics Education Month
8: Montana State Geography Bee, Helena—Linda Vrooman Peterson, OPI, 444-5726

9-10: The Montana Dance Arts Assoc. Spring Dance Workshop and Summer Scholarship Auditions, Great Falls—MDAA, 585-9551, P.O. Box 1872, Bozeman, MT 59771

10-12: Spring All Arts Event, inservice for rural teachers, Miles City—Rural Education Assoc., 1-800-WMC-MONT.

14-15: Certification Advisory Council (CSPAC), Billings—Peter Donovan, 444-0301

15: Expanding Your Horizons in Science and Mathematics Career Conference for Middle and High School Students, Missoula—Cindy Babon, 549-9835

15-16: Elementary Traffic Education Training, Polson—Mary Cheryl Larango, OPI, 444-0516

15-16: Montana Art Interscholastics (High School State Art Festival), Kalispell—Wes Hines, 756-5075.

15-17: Center for Adolescent Development Adult Institute, Colstrip—Center for Adolescent Development, 442-2733

18: OPI/Chapter 1 Spring Workshop, Glasgow—Gwen Smith, OPI, 444-5660

19: Early Intervention and Developmentally Appropriate Practices, Glasgow—Chapter 1 R-TAC, Portland, OR, 1-800-788-1887

19: OPI/Chapter 1 Spring Workshop, Great Falls—Gwen Smith, OPI, 444-5660

20: OPI/Chapter 1 Spring Workshop, Butte & Miles City—Gwen Smith, OPI, 444-5660

21: Early Intervention and Developmentally Appropriate Practices, Miles City—Chapter 1 R-TAC, Portland, OR, 1-800-788-1887

21: OPI/Chapter 1 Spring Workshop, Billings—Gwen Smith, OPI, 444-5660

22: Early Intervention and Developmentally Appropriate Practices, Billings—Chapter 1 R-TAC, Portland, OR, 1-800-788-1887

22: OPI/Chapter 1 Spring Workshop, Polson—Gwen Smith, OPI, 444-5660

22-24: Montana Home Economics Assoc. State Meeting and 4-State Meeting, Glendive—Judy Ward, 265-5481, Ext. 33

23: Expanding Your Horizons in Science and Mathematics, Billings—Nancy Downing, 657-1050

24-17: Montana Library Assoc. Conference, Butte—Diana Loble, OPI, 444-3132

24-26: Montana Indian Education Assoc. Convention, Missoula—Angie Brockie, 353-2607

24-26: State Traffic Education Conference, Lewistown—Curt Hahn, OPI, 444-4432

29-May 7: Montana Archaeology Week

May 1994

4-6: Council for Exceptional

Children Conference, Missoula—Linda Beadle, OPI, 444-5661
26-27: Board of Public Education, Helena—Jeannie Worsch, 444-0302

June 1994

6-30: Advanced Driving Full-Day Workshops, Lewistown—Curt Hahn, OPI, 444-4432

9-10: Montana Prevention Caucus Retreat—Patrick Smith, 444-2555

13-15: With Liberty and Justice For All, Introductory Workshop, Billings—Sue Suiter, 245-2513

13-16: Montana Institute for Effective of American Indian Children, Billings—Bob Parsley, OPI, 444-3013

13, 20, 27: Advanced Driving Half-Day "Refresher" Workshops, Lewistown—Curt Hahn, OPI, 444-4432

14-21: Montana Art Education Institute and Montana Creative Writing/Drama Education Institute, Missoula—Montana Alliance for Arts Education, 257-3241

16-17: Mandt Training, Kalispell—Linda Beadle, OPI, 444-5661

20-22: With Liberty and Justice For All, Advanced Workshop, Billings—Sue Suiter, 245-2513

22-24: Montana Assoc. for Pupil Transportation Summer Workshops, Billings—Helen Hagan, 454-6776 or David Huff, OPI, 444-4396

24-July 2: "In the Shadow of the Rockies," Summer Geographic Institute, 7 Lazy P Ranch near Choteau—Linda Vrooman Peterson, OPI, 444-5726

July 1994

11-14: Law-Related Education Training the Trainers Institute, Helena—Katie Vaughan, OPI, 444-0906

11-30: Advanced Driving Full-Day Workshops, Lewistown—Curt Hahn, OPI, 444-4432

21-22: Certification Advisory Council (CSPAC) Helena—Peter Donovan, Administrator, 444-0301

August 1994

1-4: Montana School Food Service Conference, Billings—Gary Watt, OPI, 444-2501

1-6: Advanced Driving Full-Day Workshops, Lewistown—Curt Hahn, OPI, 444-4432

8-10: American Indian Law-Related Education Institute—Katie Vaughan, OPI, 444-0906

18-19: Mandt Training, Helena—Linda Beadle, OPI, 444-5661

September 1994

21-22: Mandt Training, Great Falls—444-5661

28-30: Chapter 1 Fall Conference, Billings—Gwen Smith, OPI, 444-5660

October 1994

7: Statehood Centennial Bell Award applications due—Linda Vrooman Peterson, OPI, 444-5726

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